

California High-Speed Rail Authority



RFP No.: HSR 13-57

**Request for Proposal for Design-Build
Services for Construction Package 2-3**

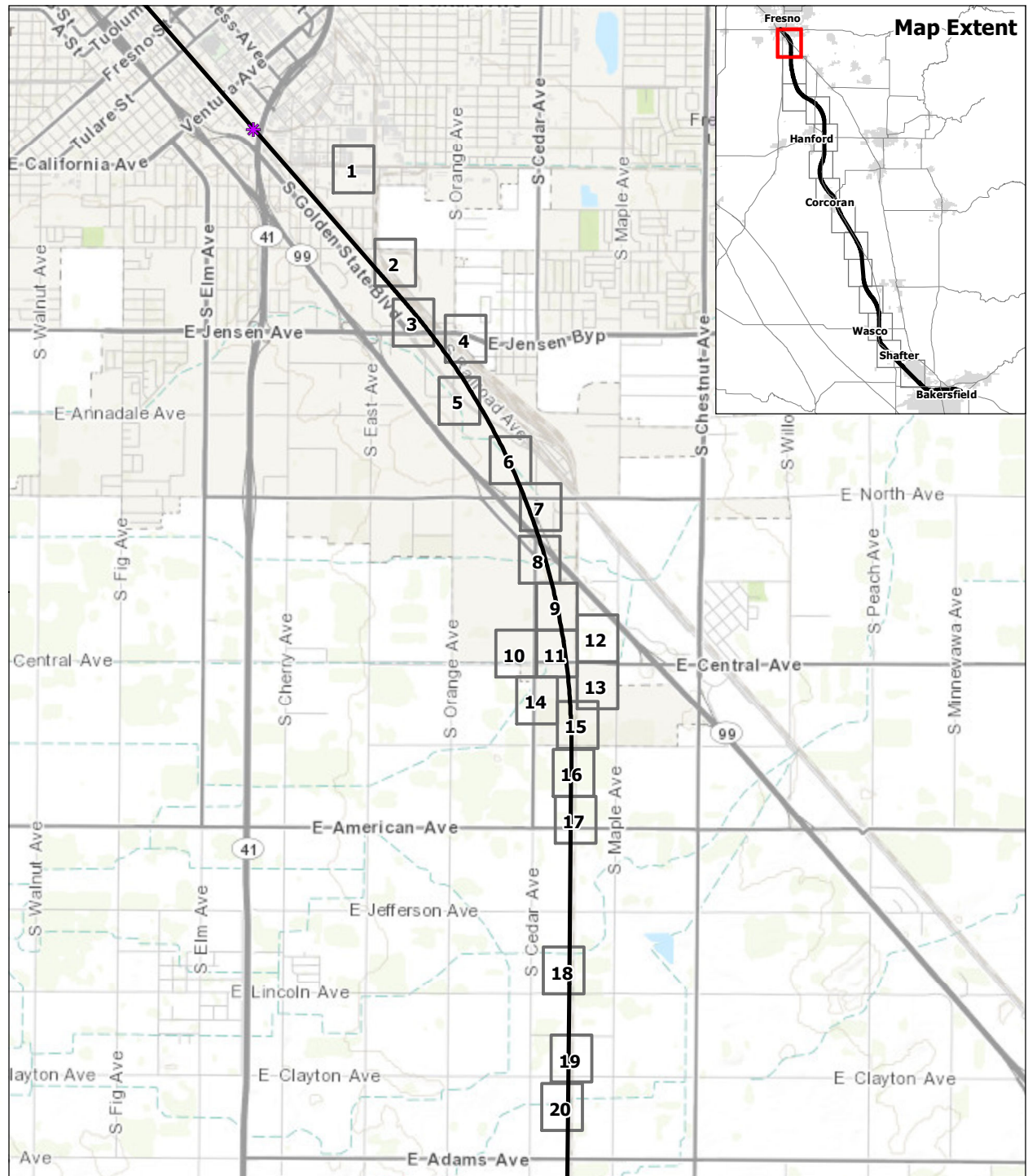
**Reference Material, Part E.3 –
Fresno-Bakersfield Section 401 Permit
Application Attachment 5**

Attachment 5

Project Impact Mapbook

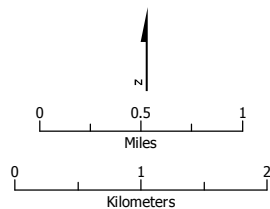
CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

RFP No.: 13-57 – Addendum No. 5 - 10/09/2014



Source: Kings County, 2012-2013; URS/HMM/Arup JV, 2014.
Image source: ESRI

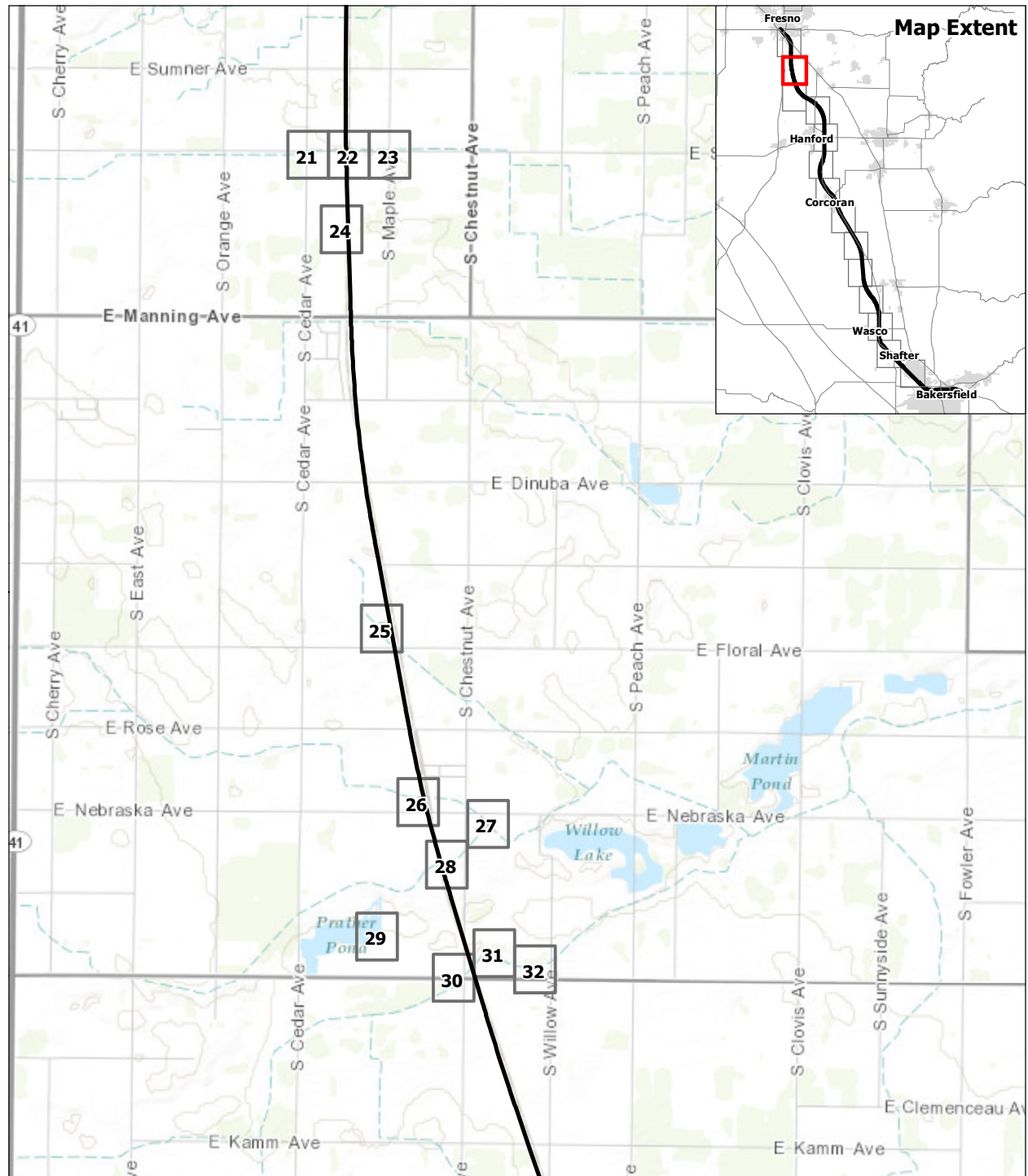
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- PP1 terminus
- Preferred Alternative
- Mapbook Pages

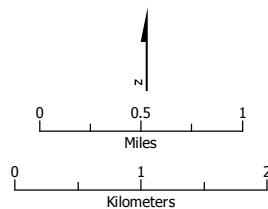
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FRESNO TO BAKERSFIELD



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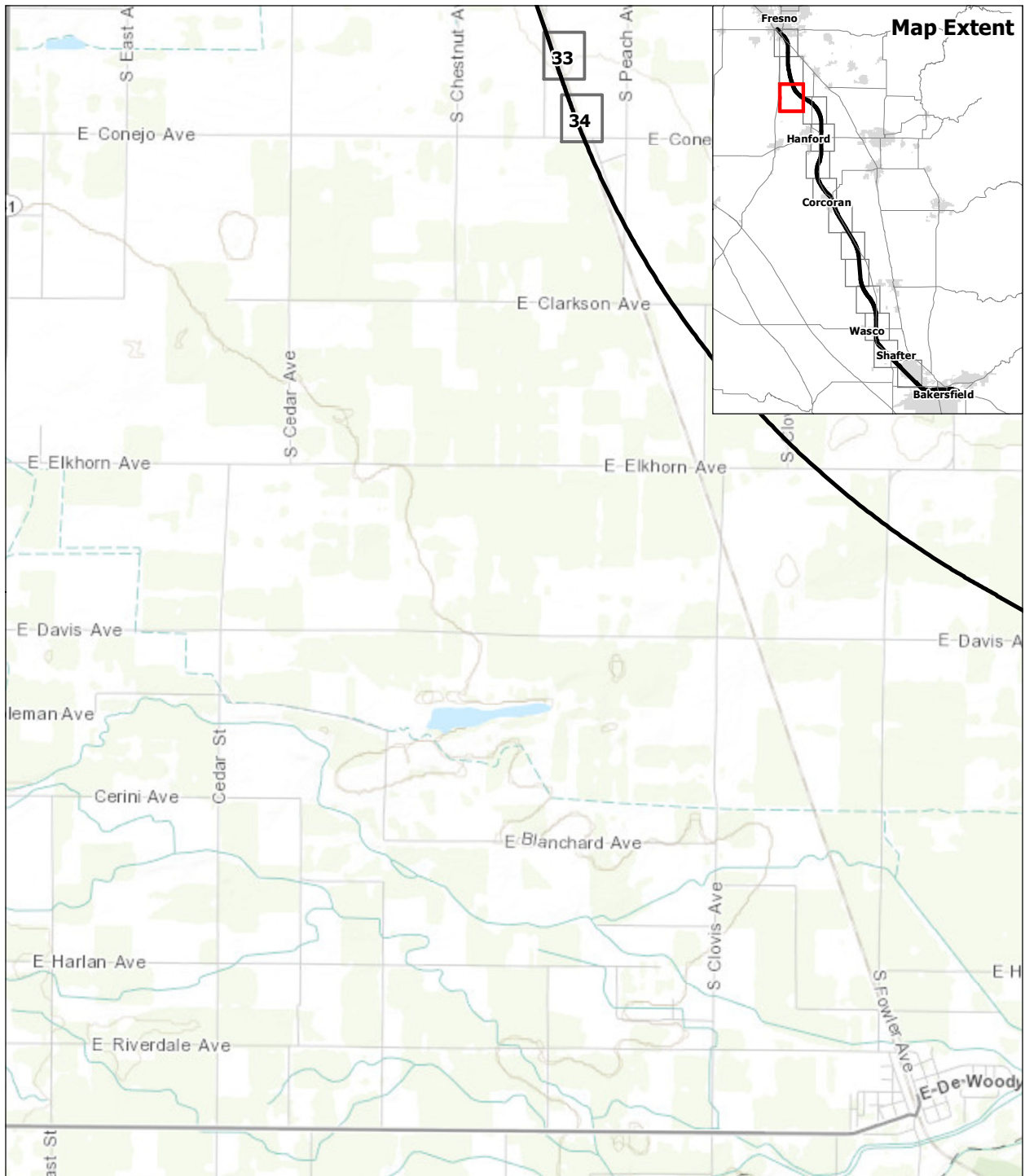
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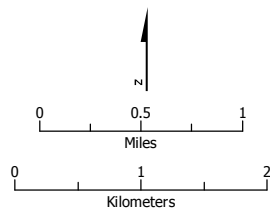
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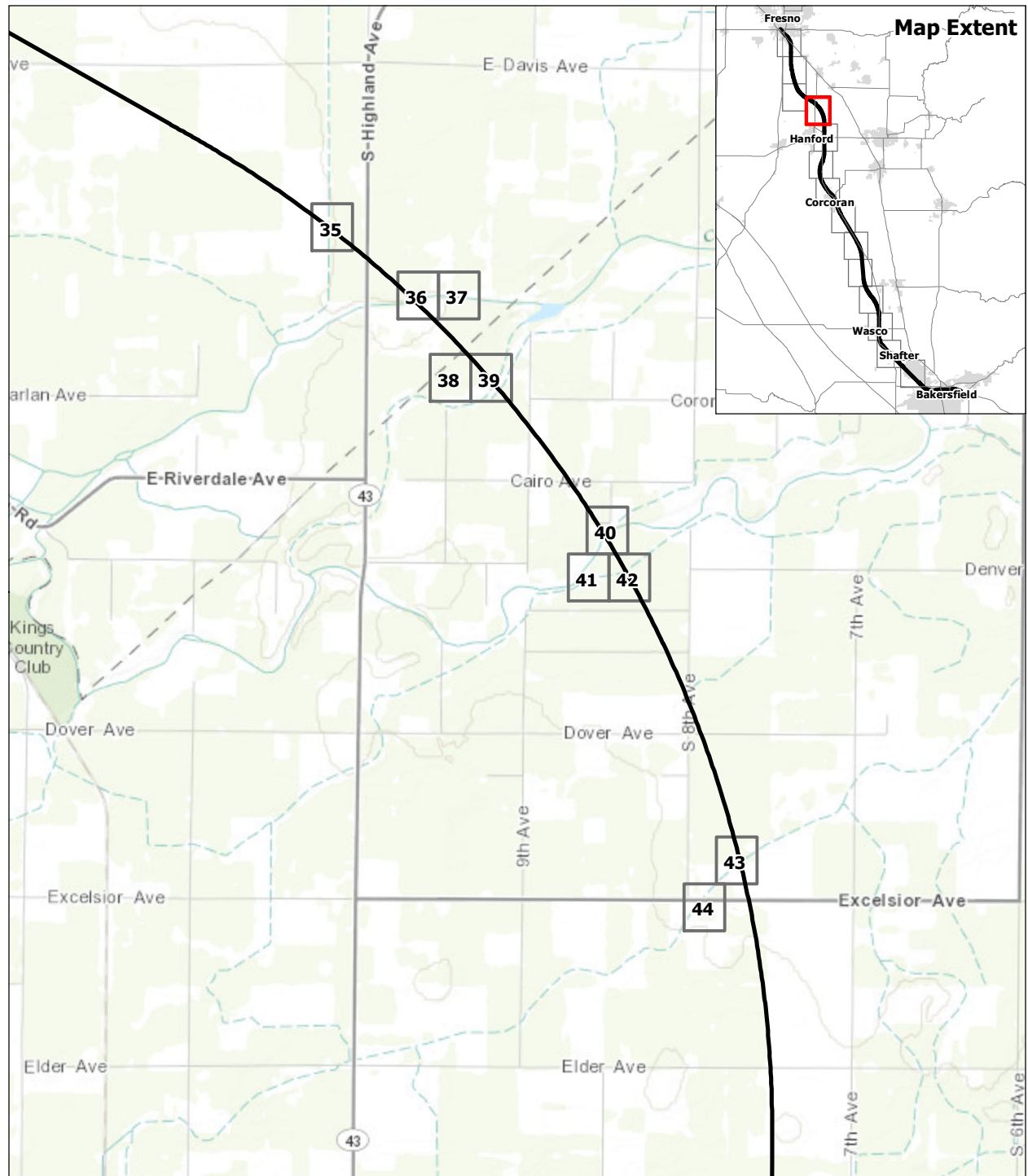
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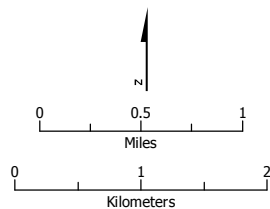
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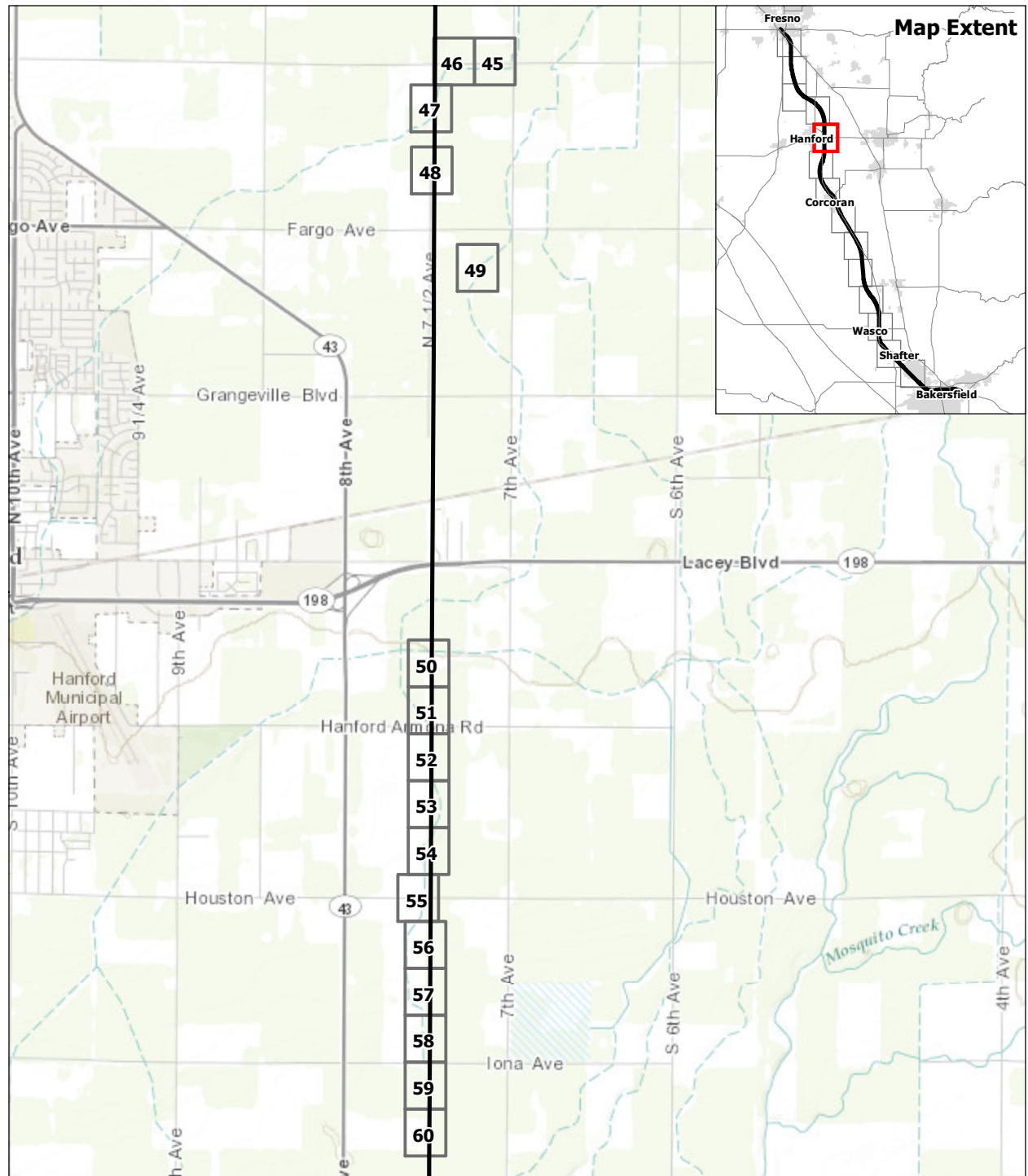
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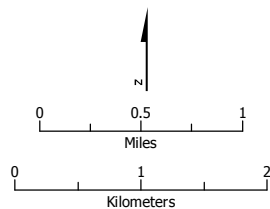
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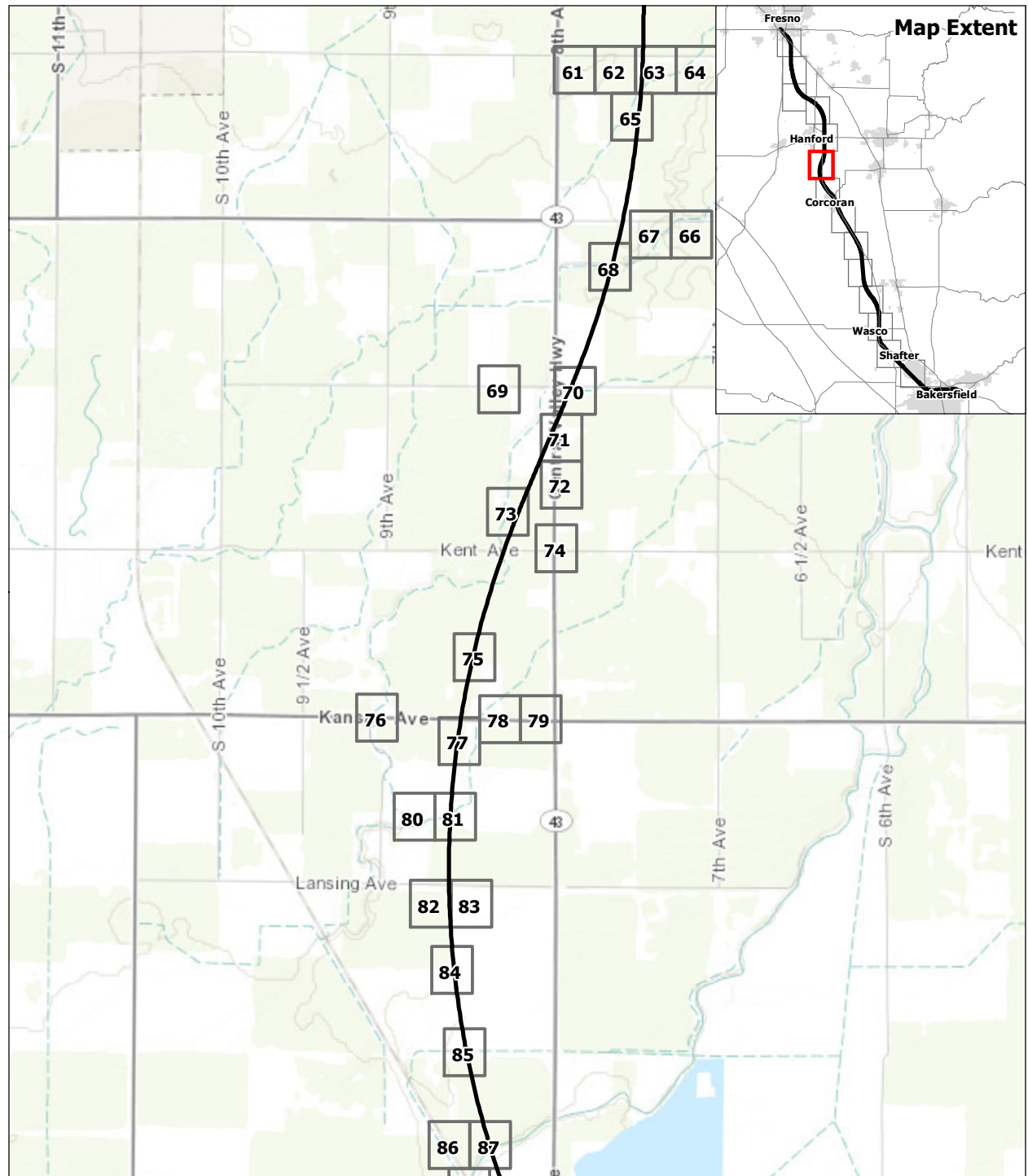
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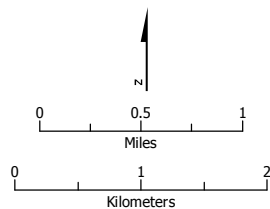
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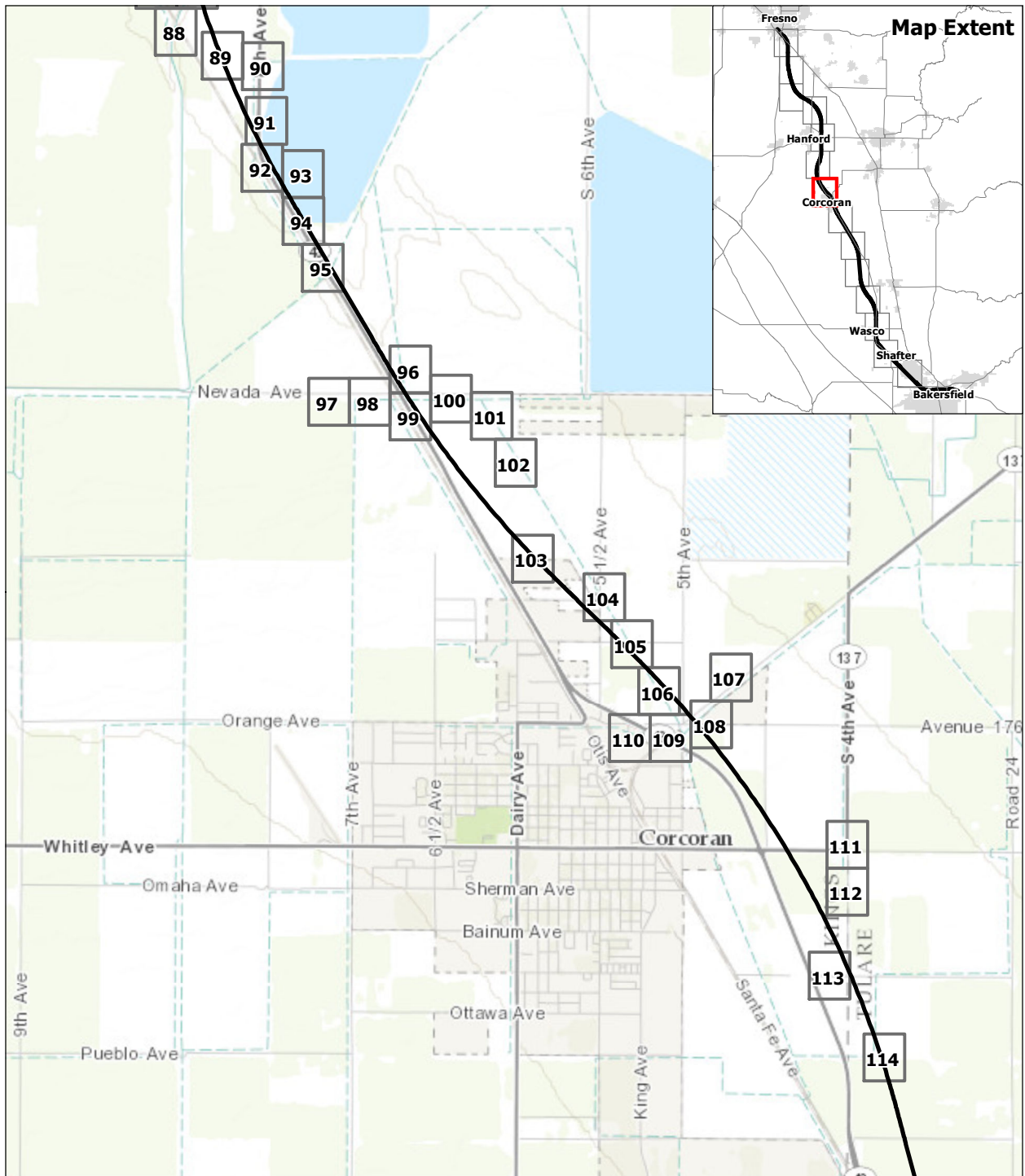
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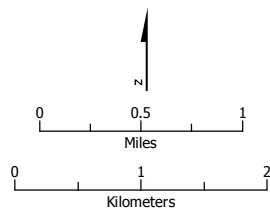
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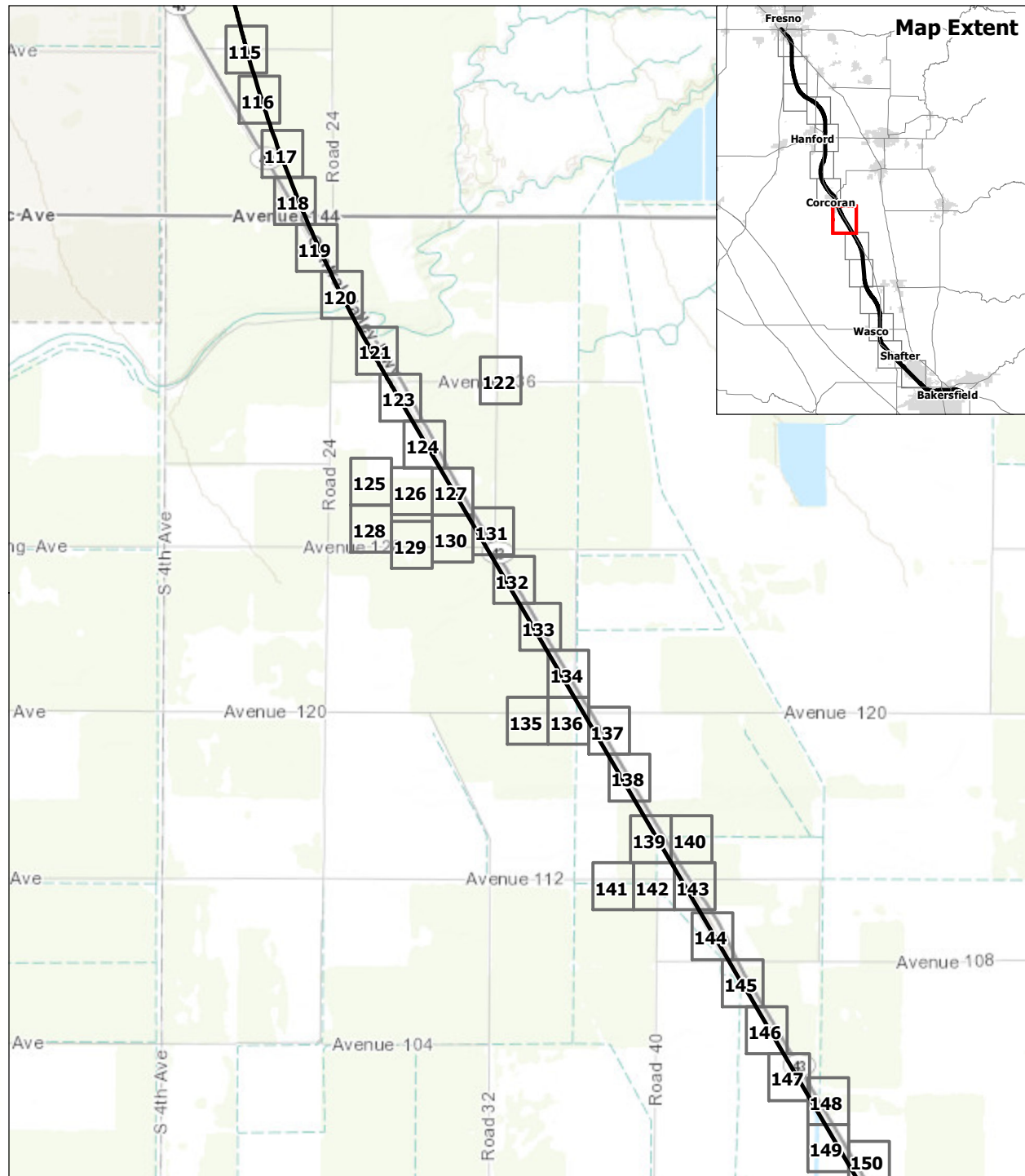
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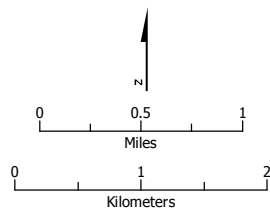
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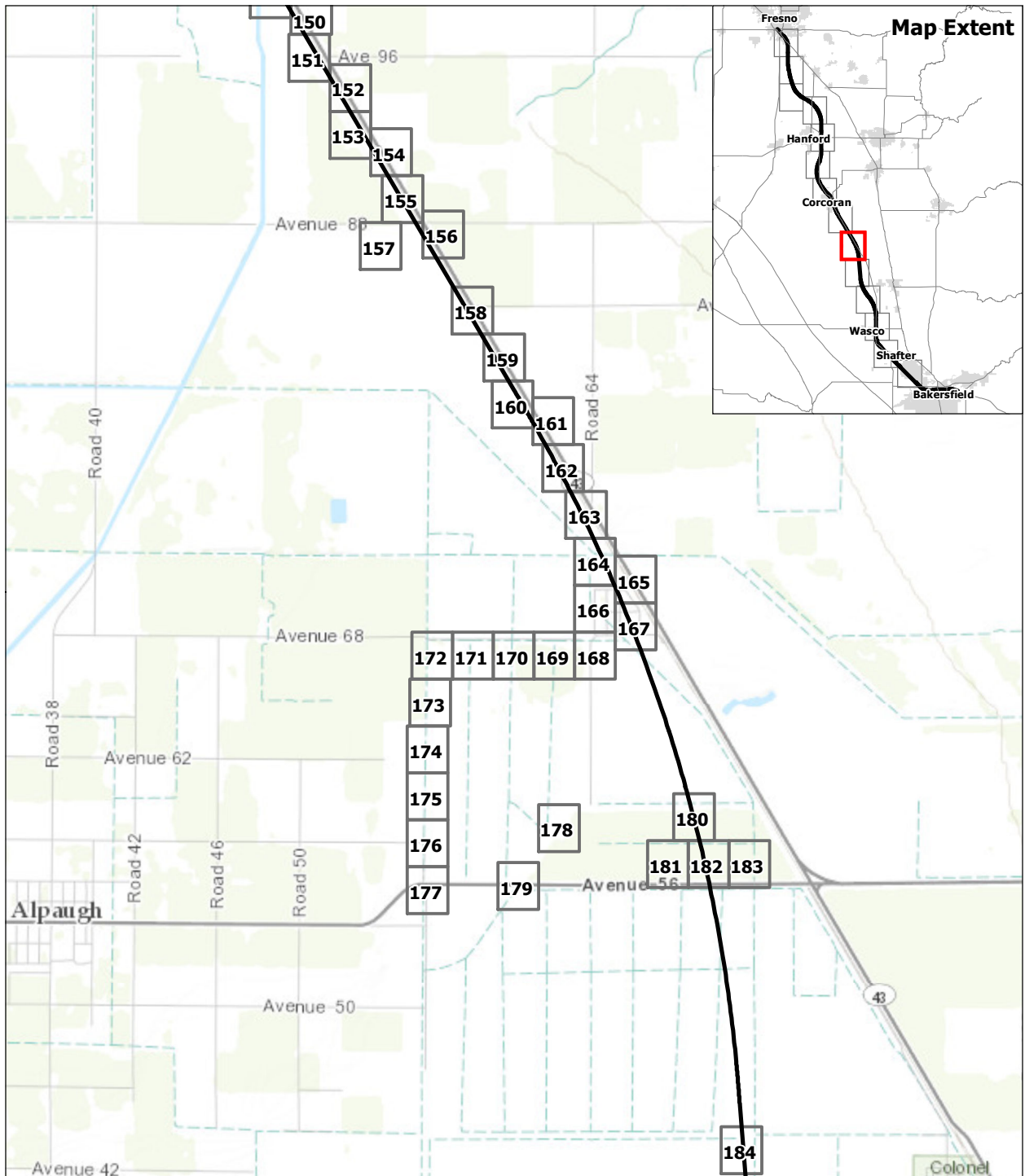
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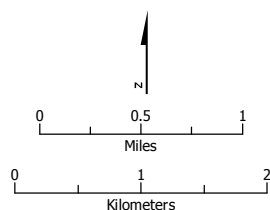
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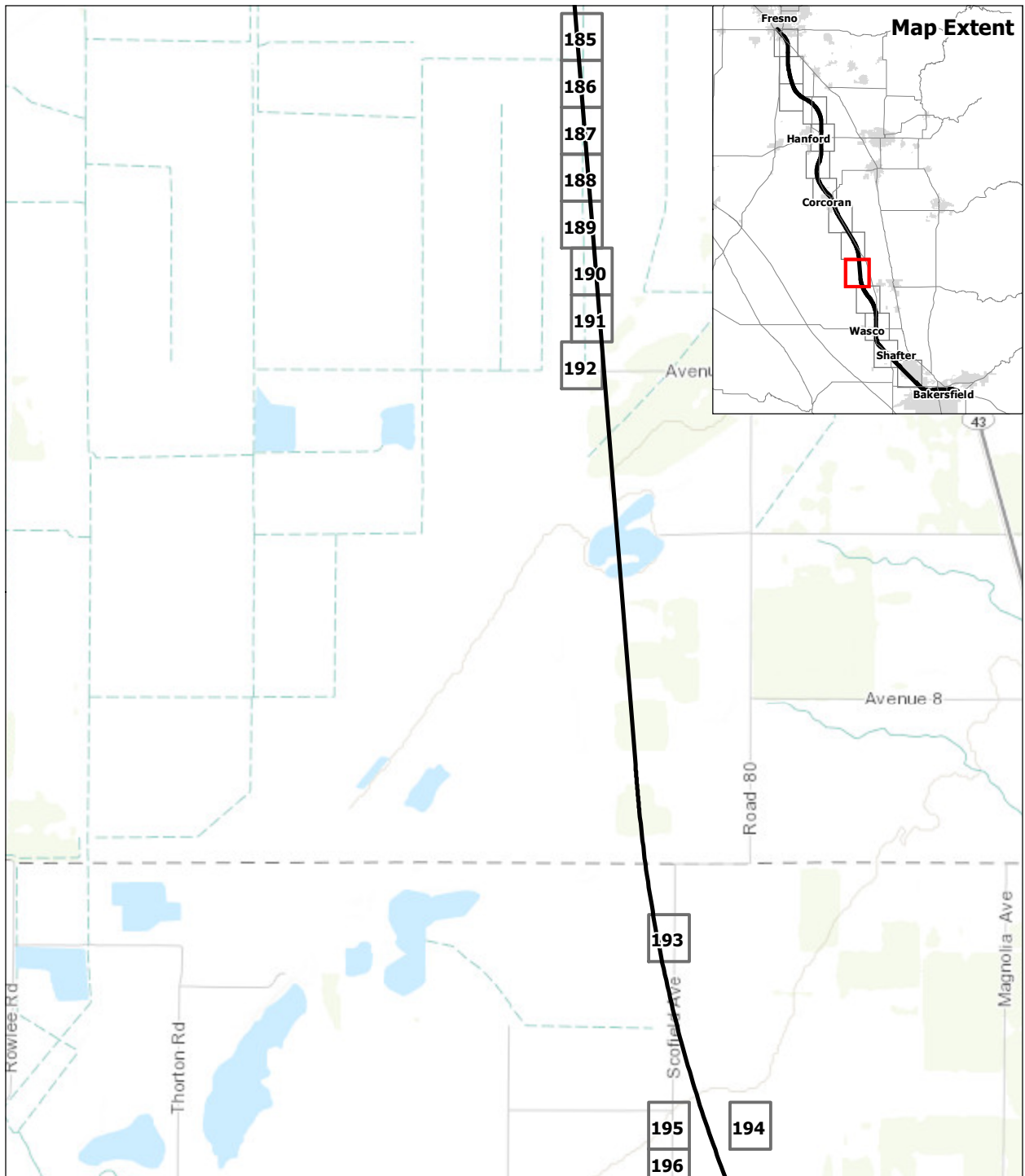
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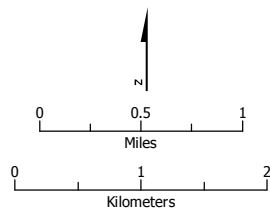
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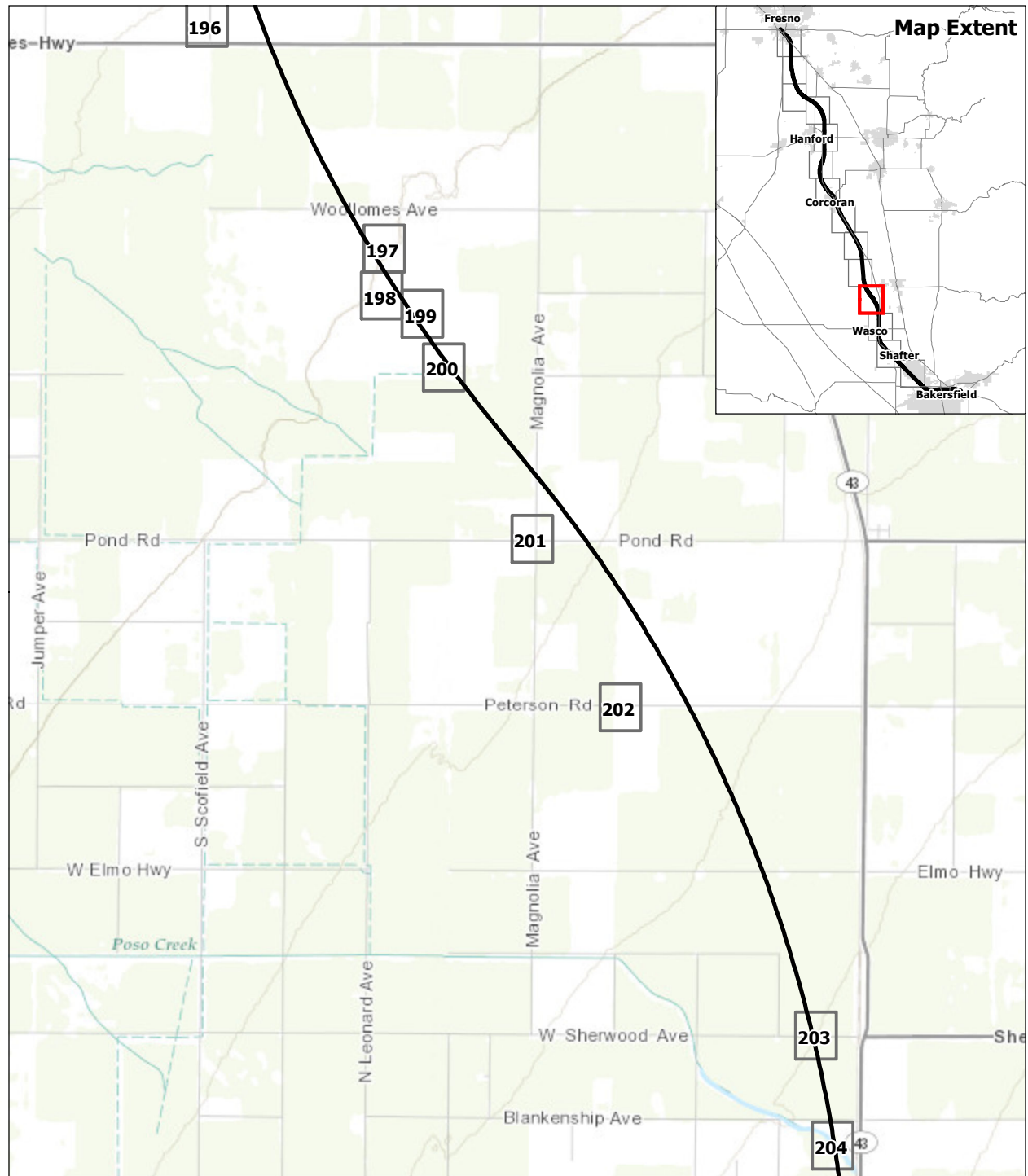
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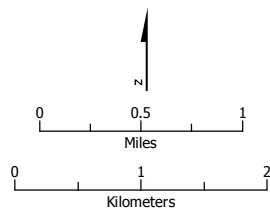
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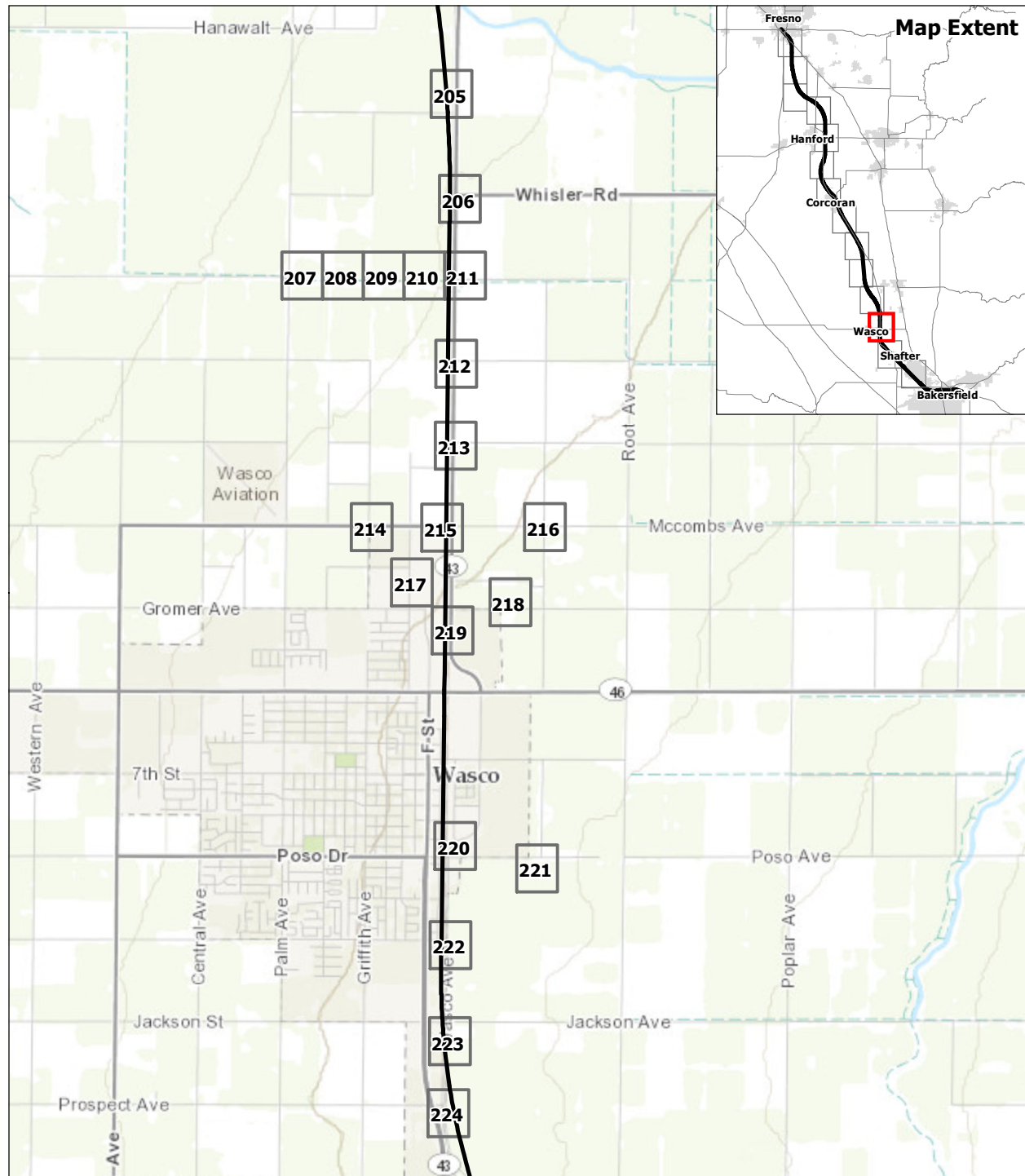
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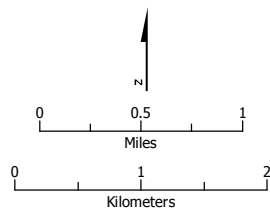
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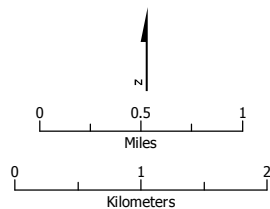
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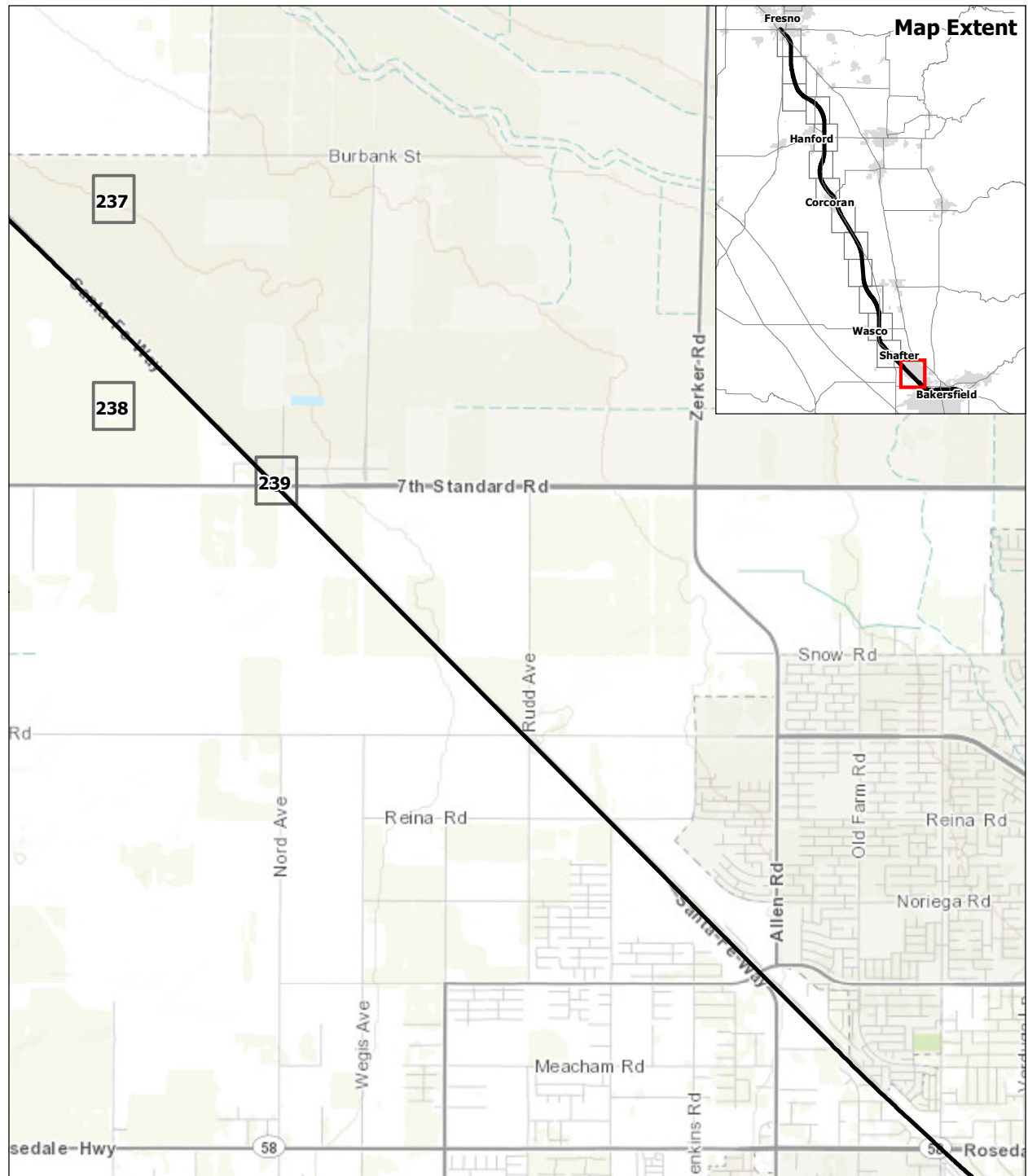
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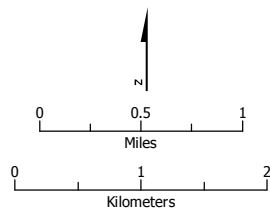
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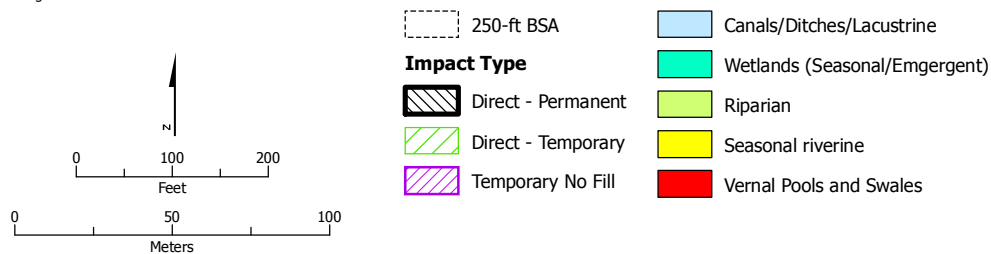
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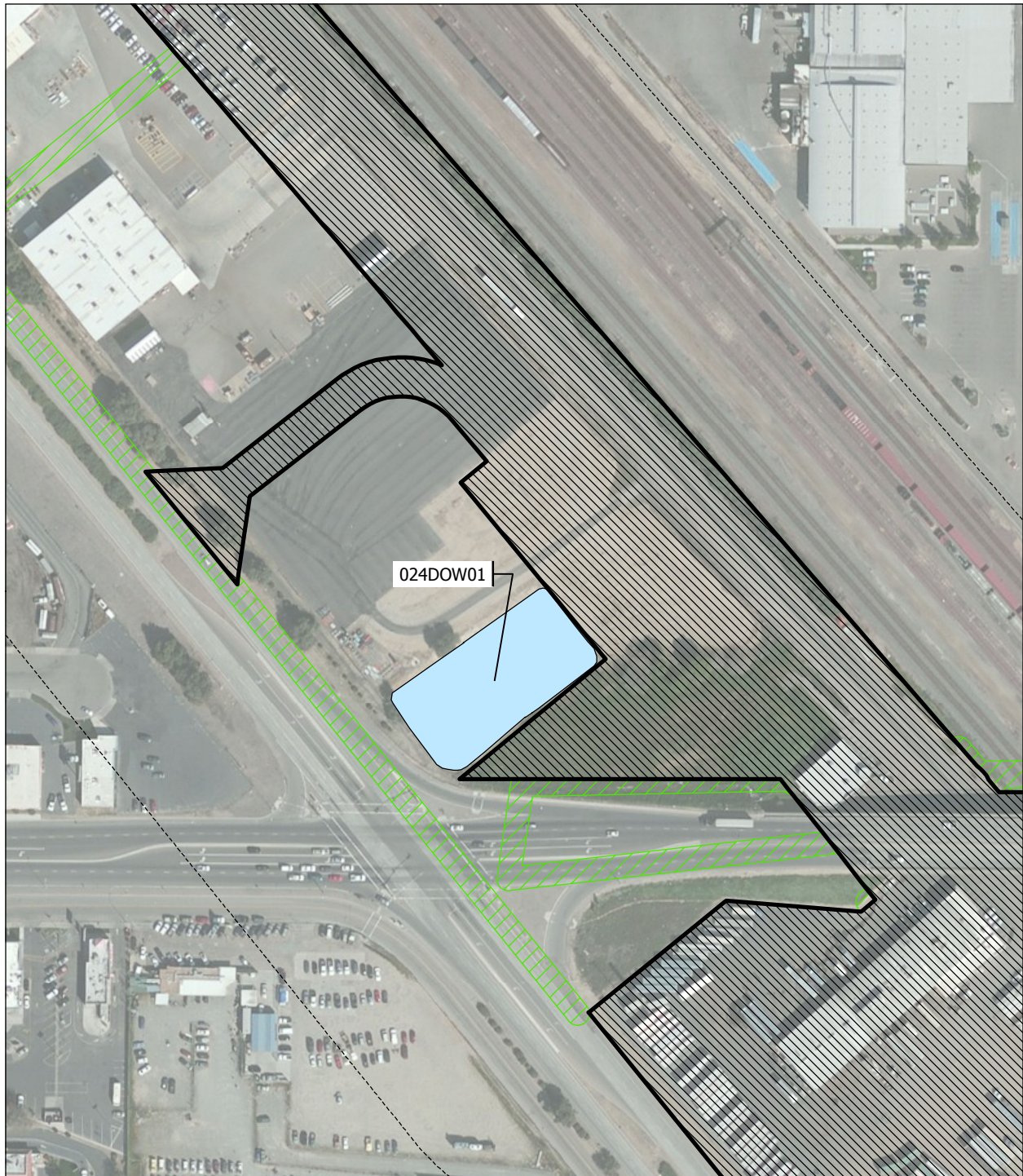


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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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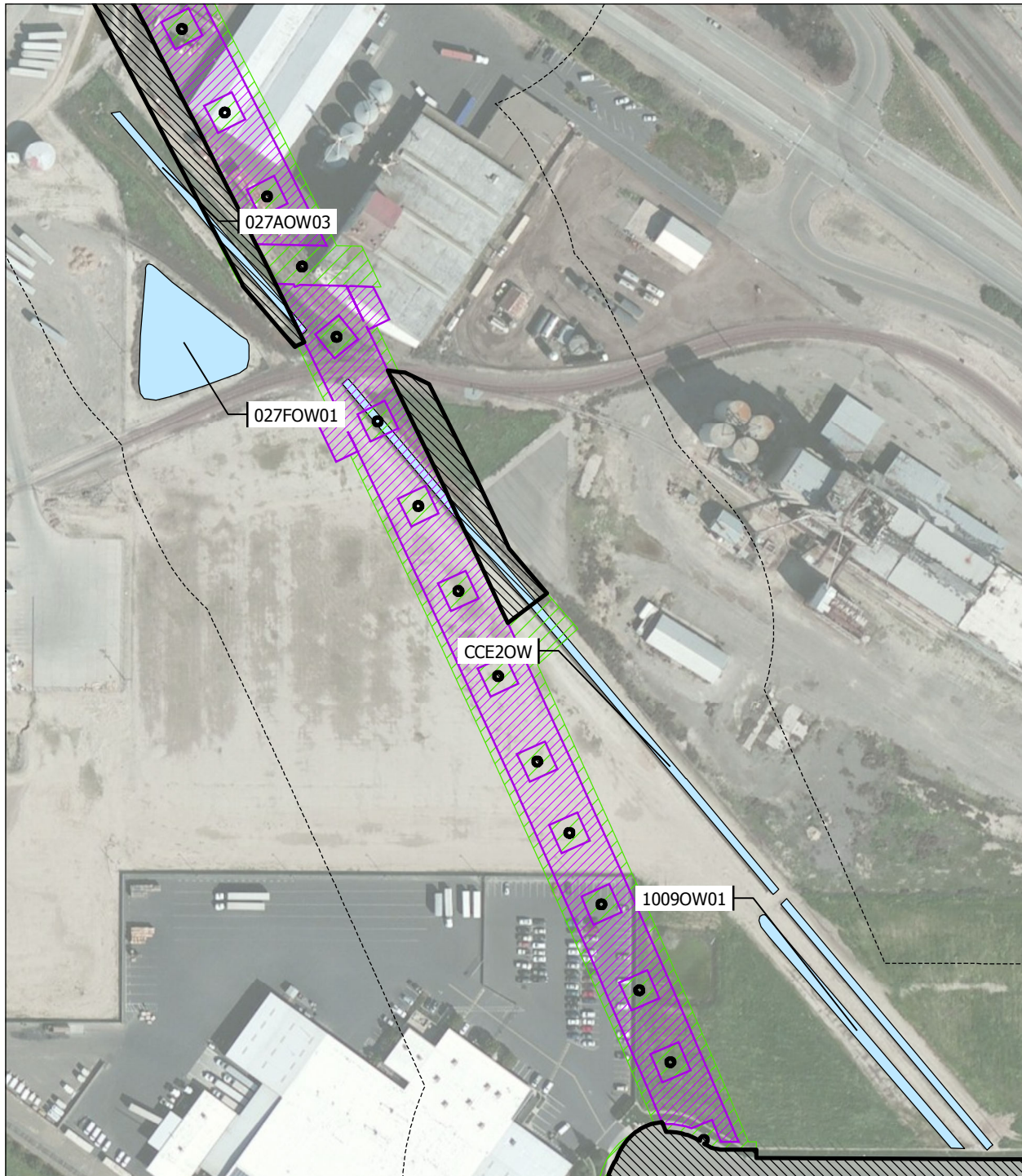


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250-ft BSA	Canals/Ditches/Lacustrine
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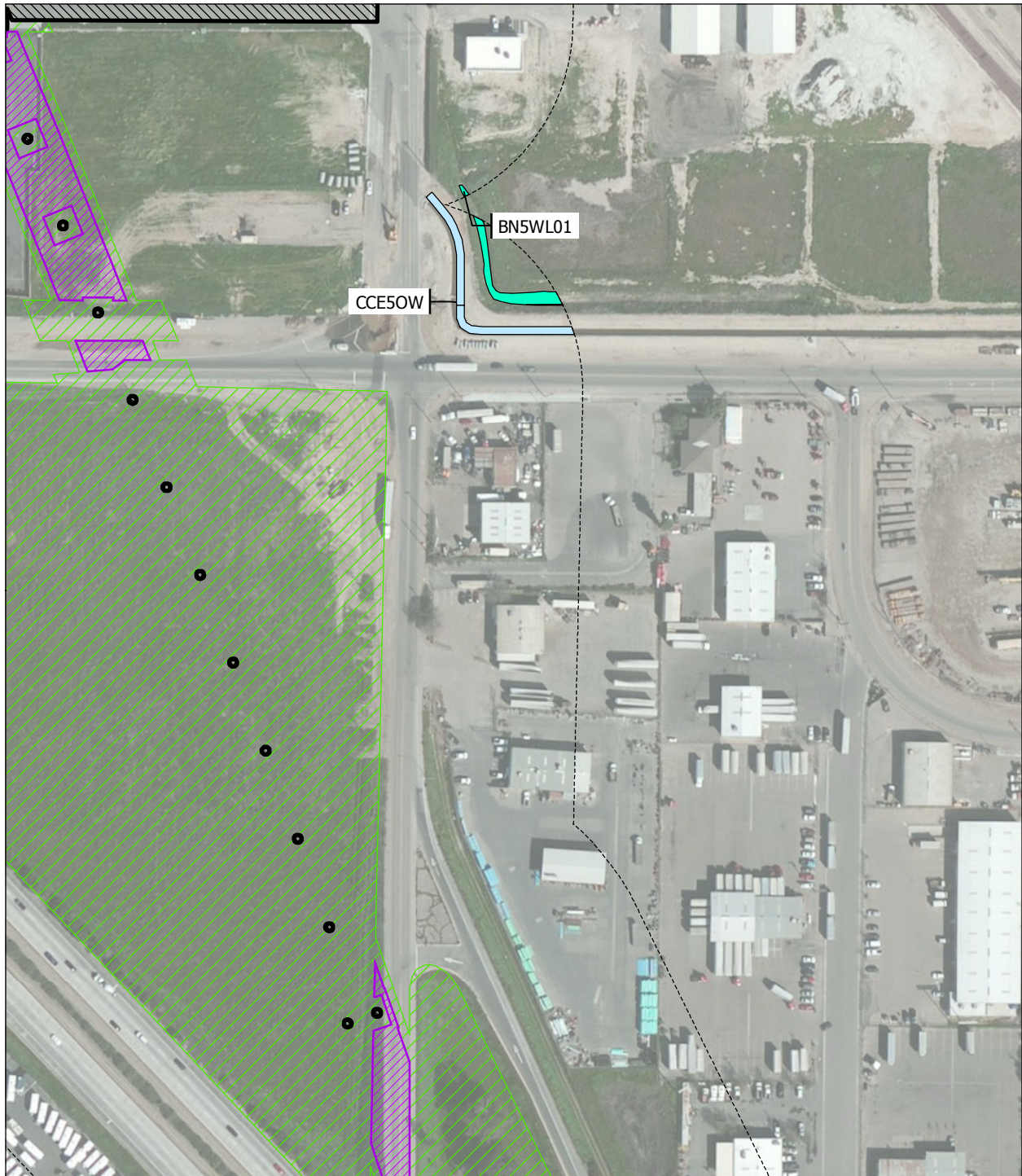


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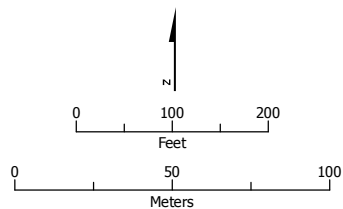


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

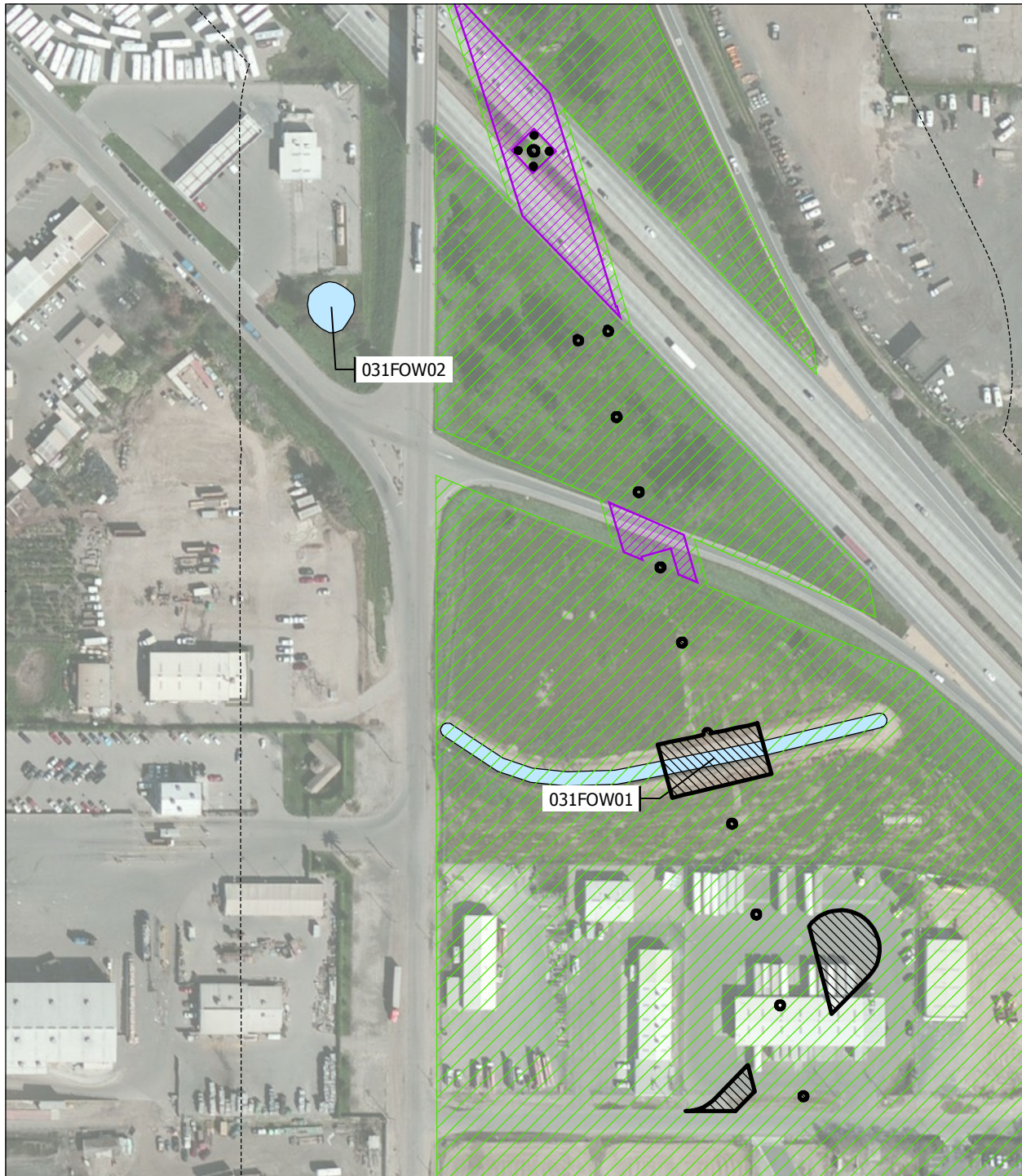


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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
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- | | |
|--------------------|------------------------------|
| 250-ft BSA | Canals/Ditches/Lacustrine |
| Impact Type | Wetlands (Seasonal/Emergent) |
| Direct - Permanent | Riparian |
| Direct - Temporary | Seasonal riverine |
| Temporary No Fill | Vernal Pools and Swales |

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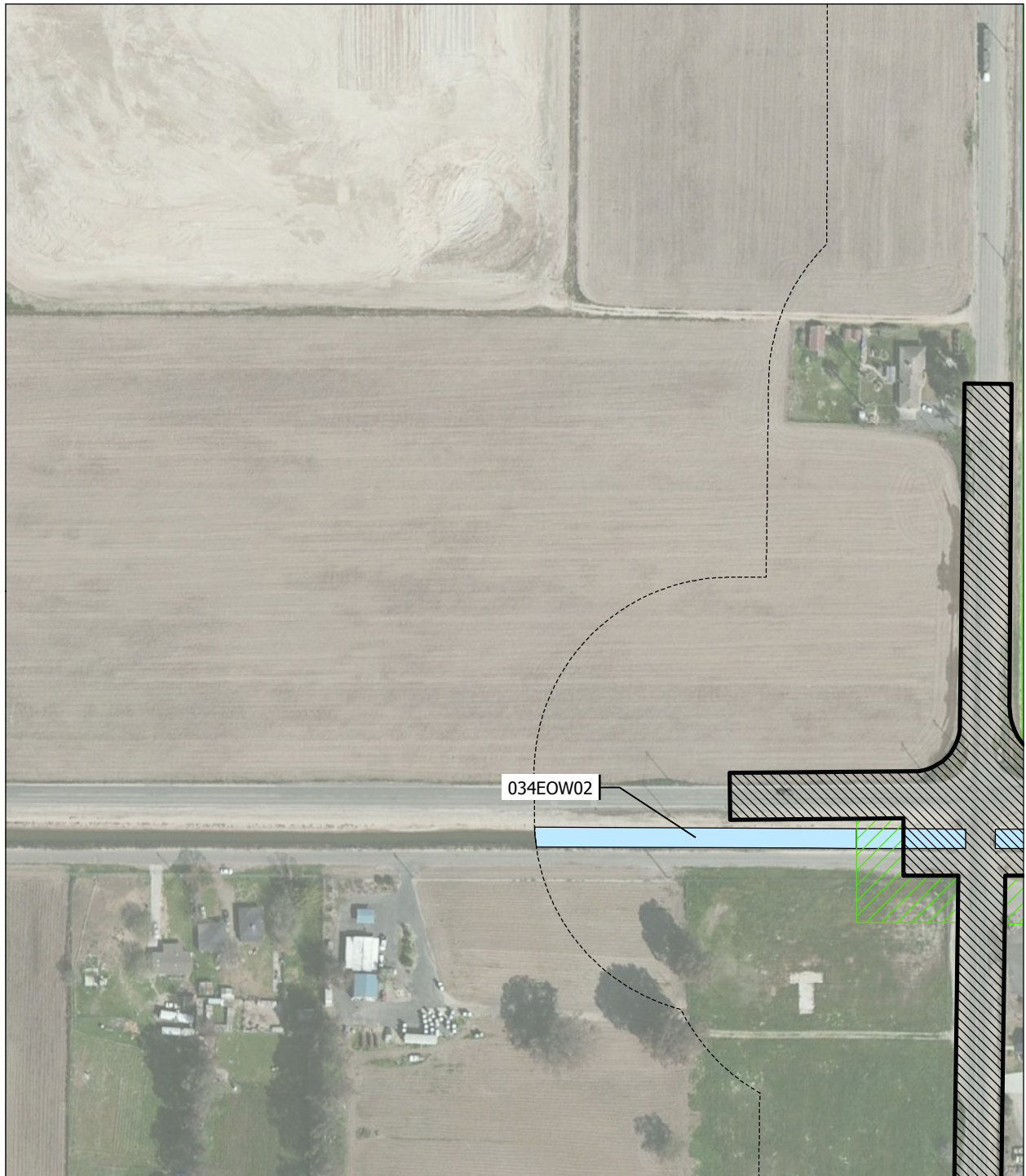
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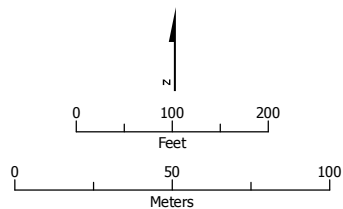
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250-ft BSA

Impact Type

Direct - Permanent

Direct - Temporary

Temporary No Fill

Canals/Ditches/Lacustrine

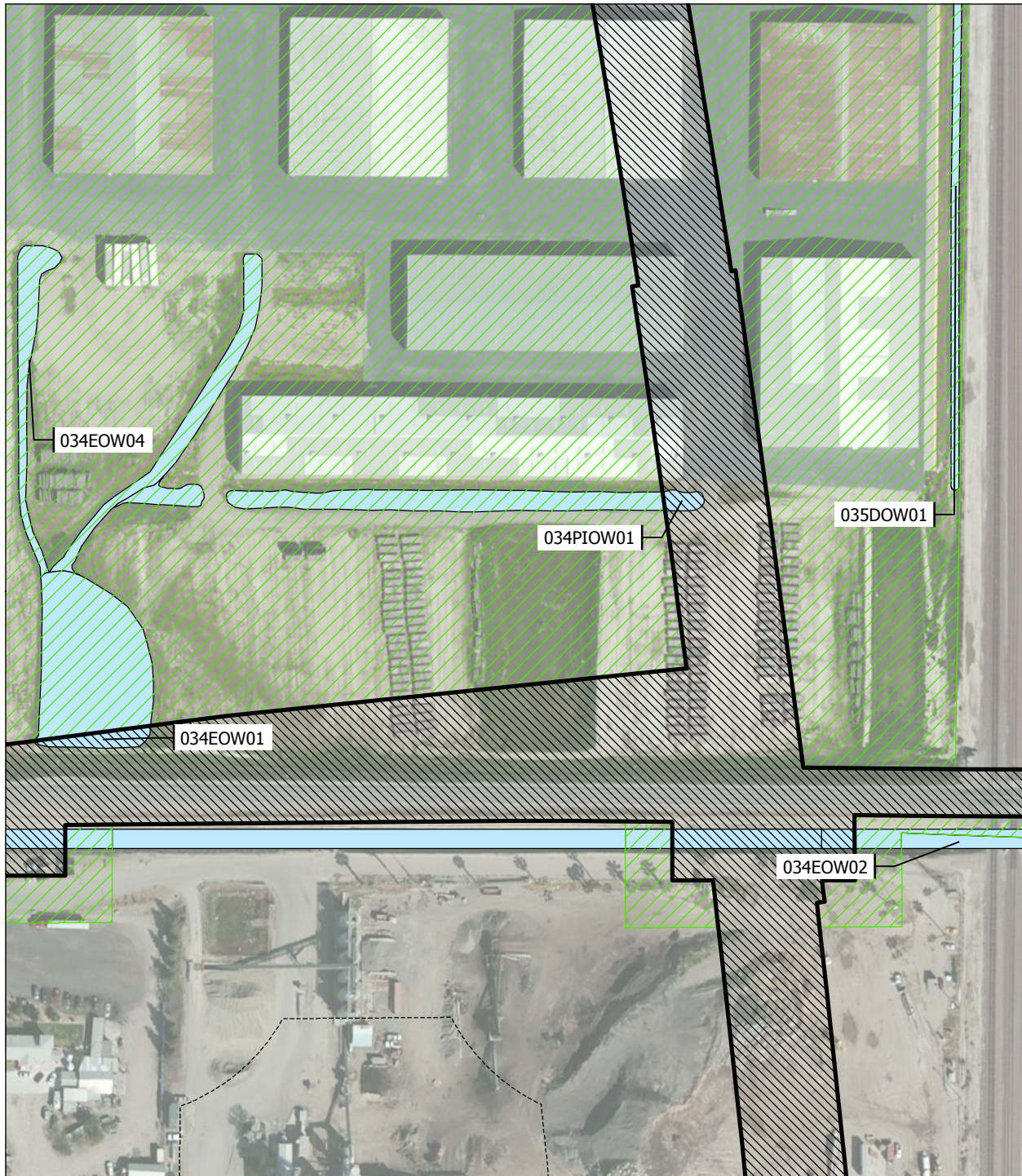
Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

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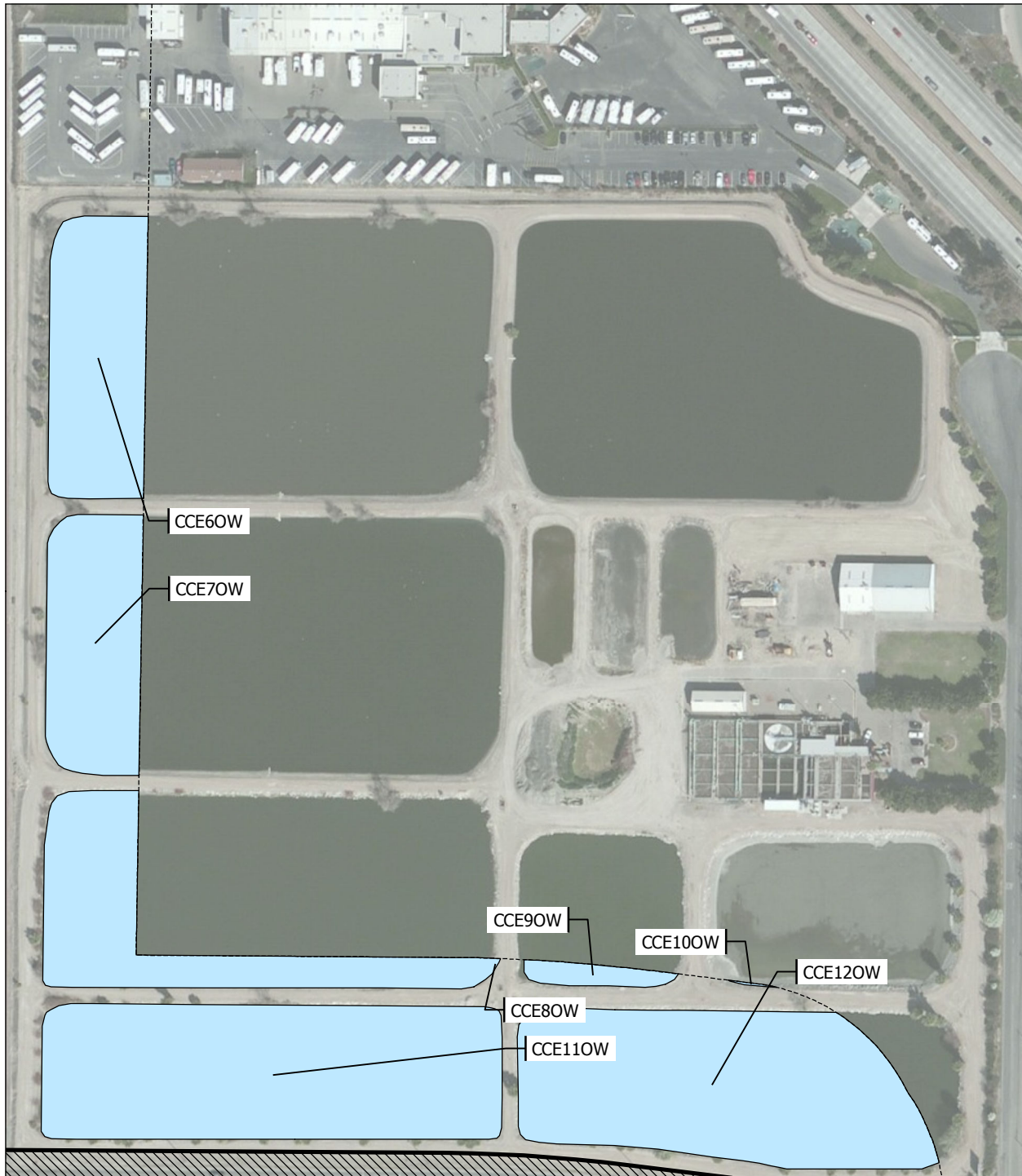


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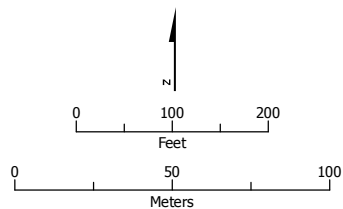


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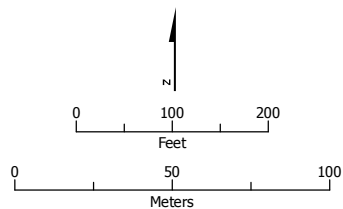
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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
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Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

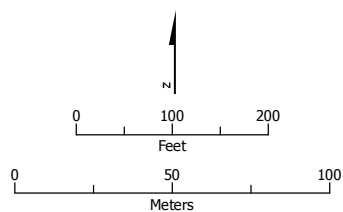
Seasonal riverine

Vernal Pools and Swales



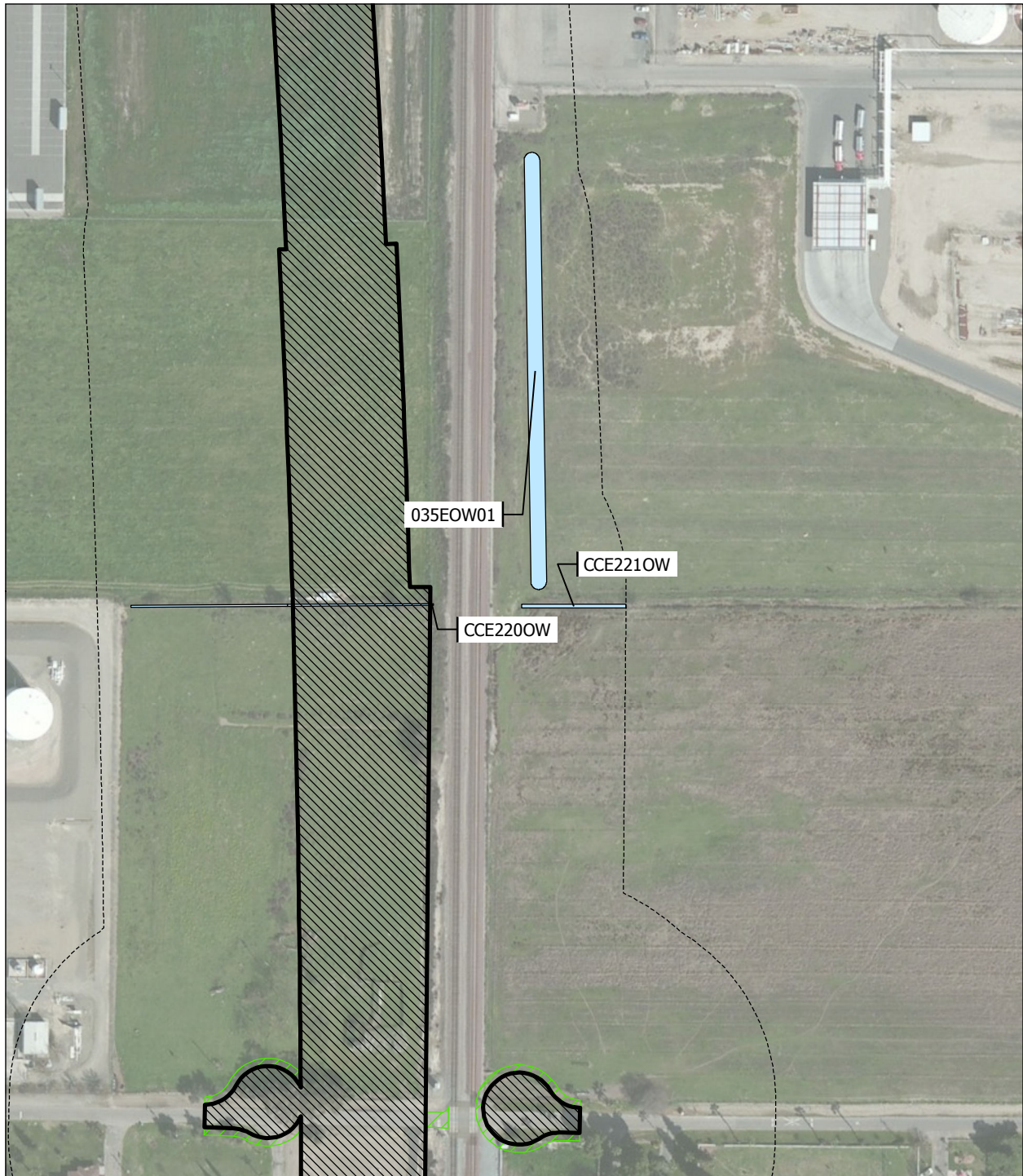
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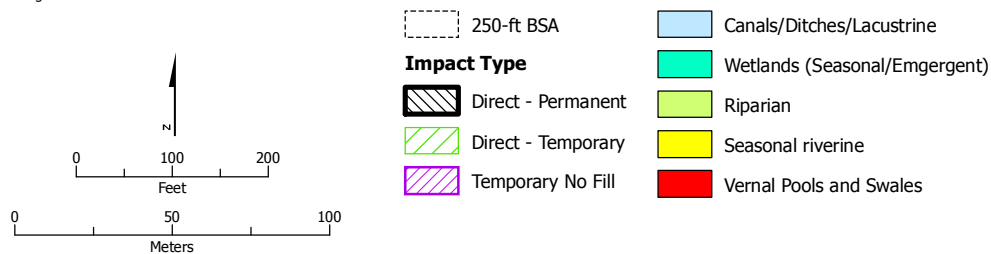
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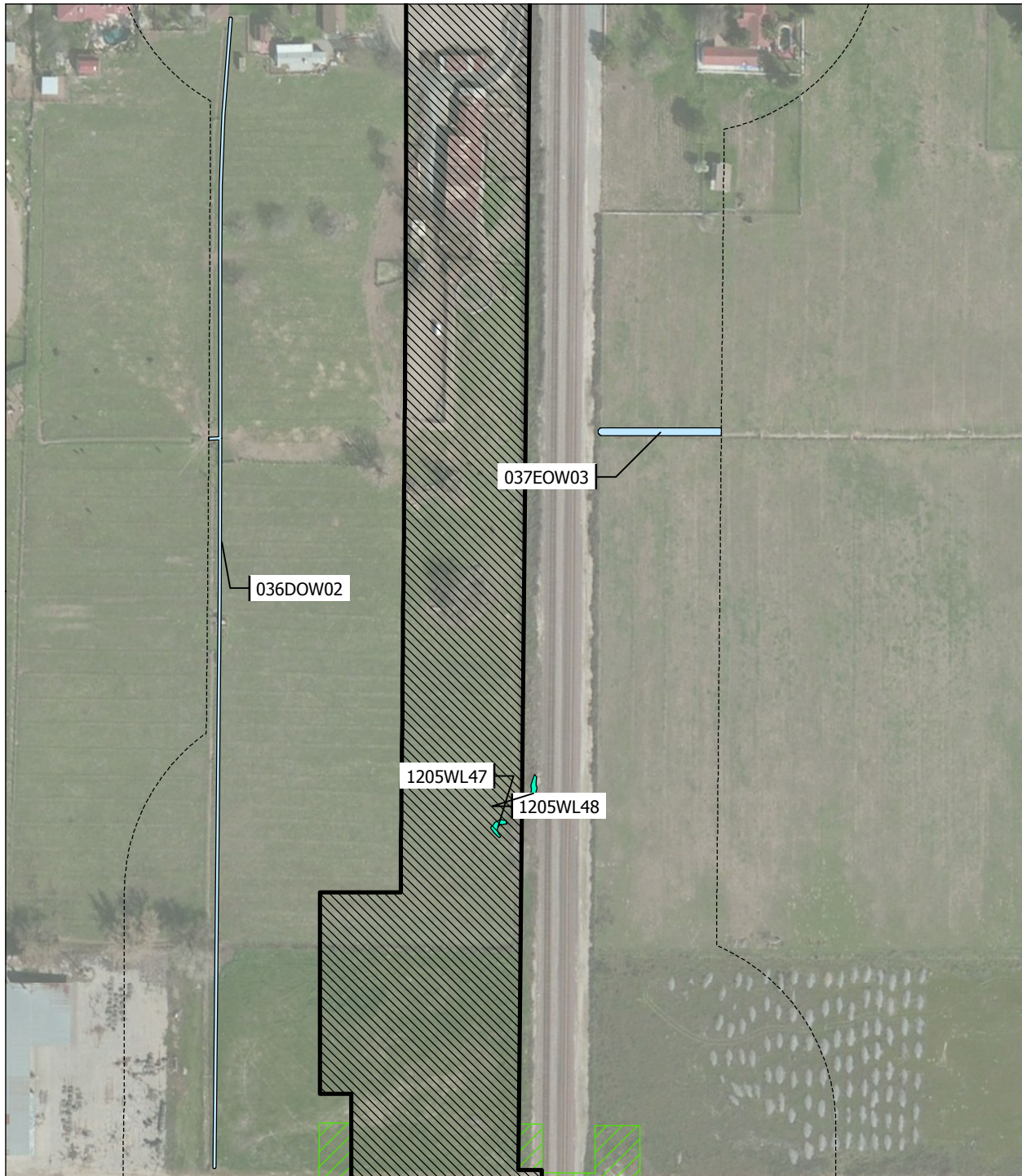
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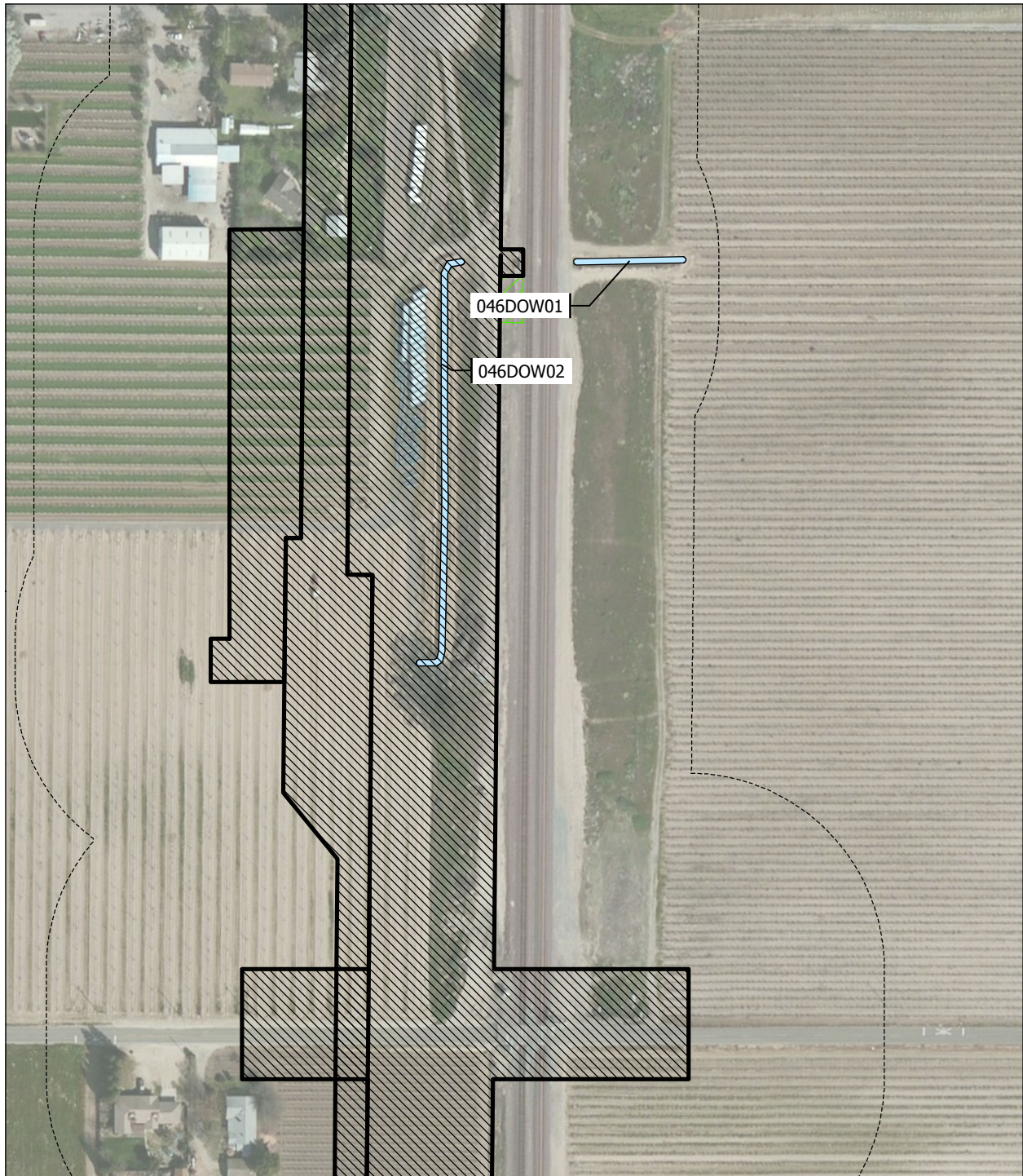
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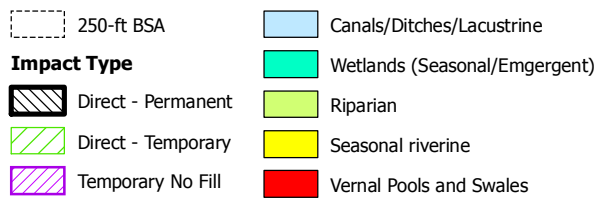
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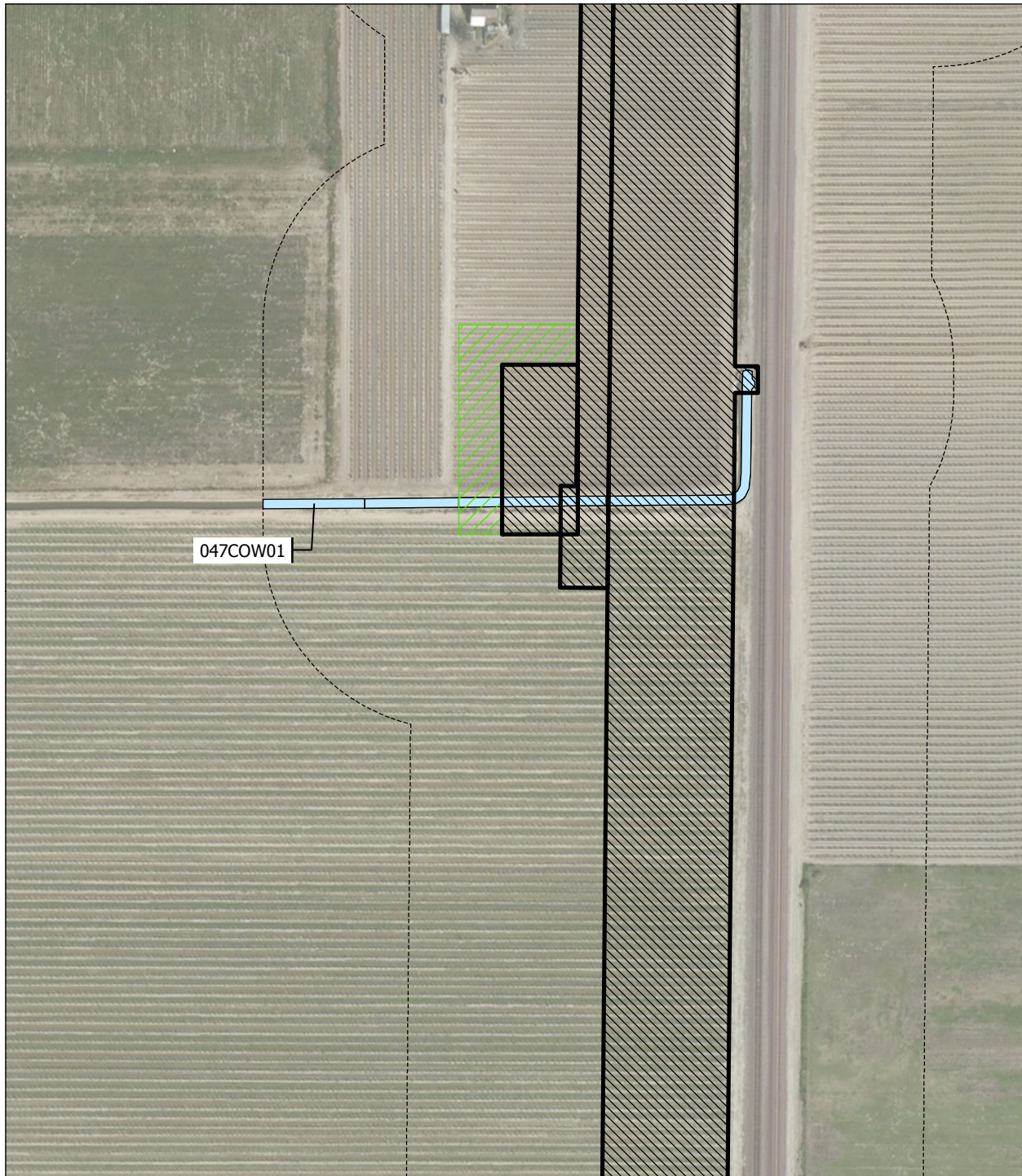
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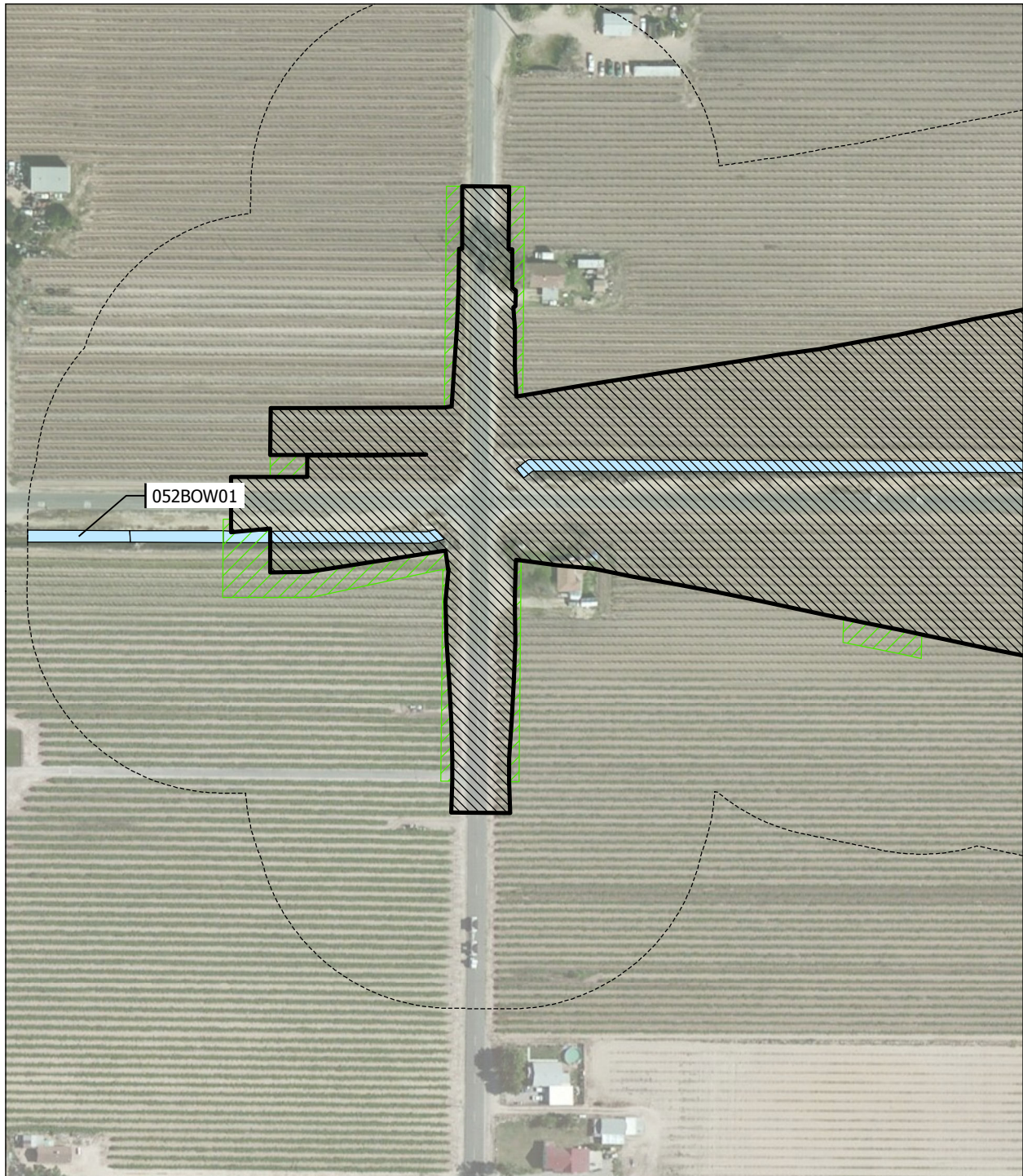
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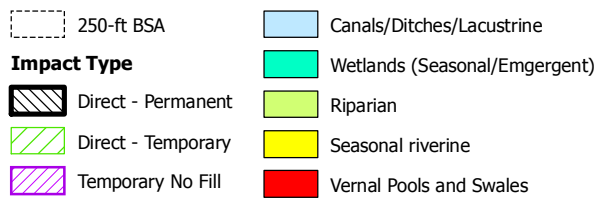
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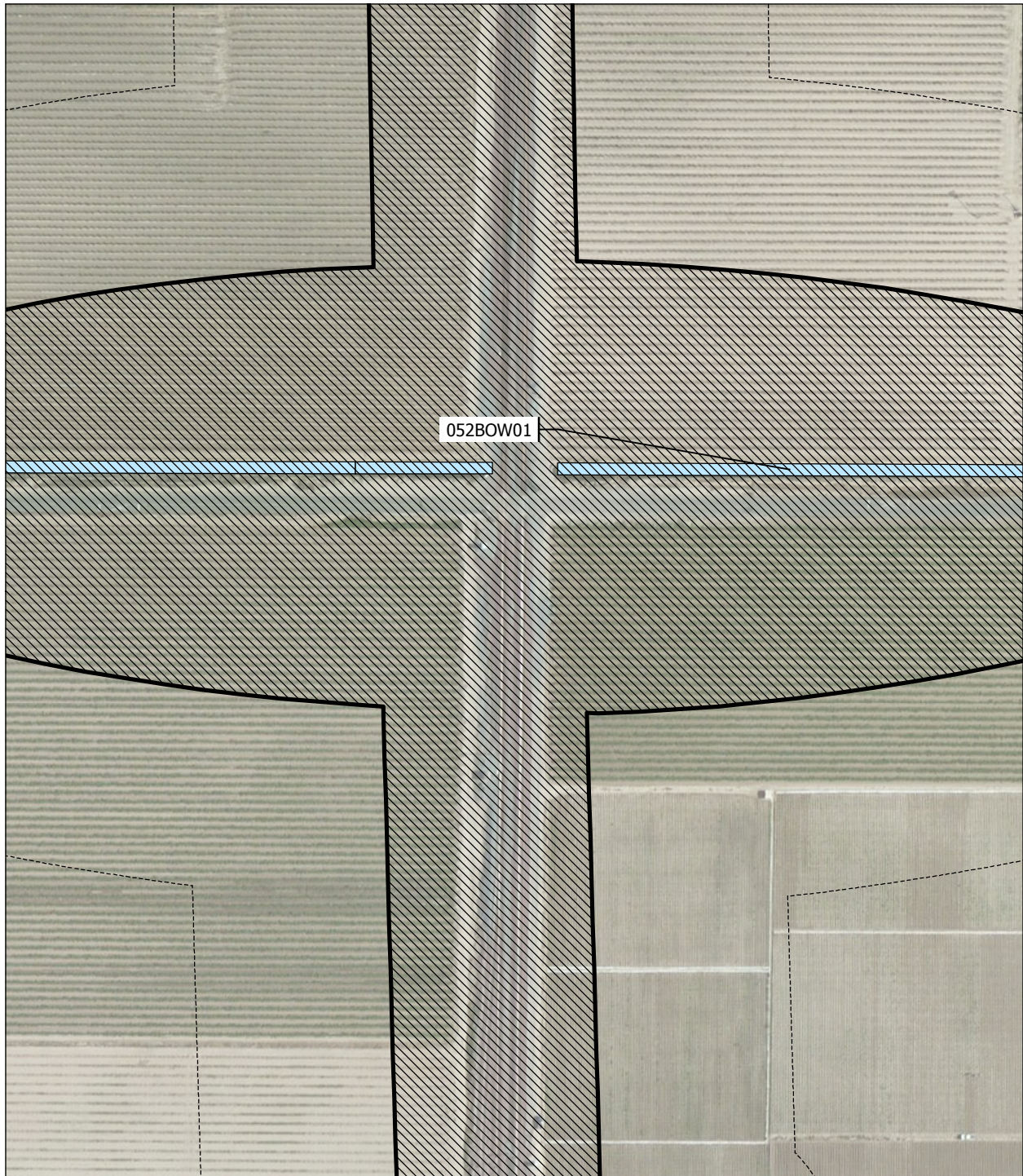
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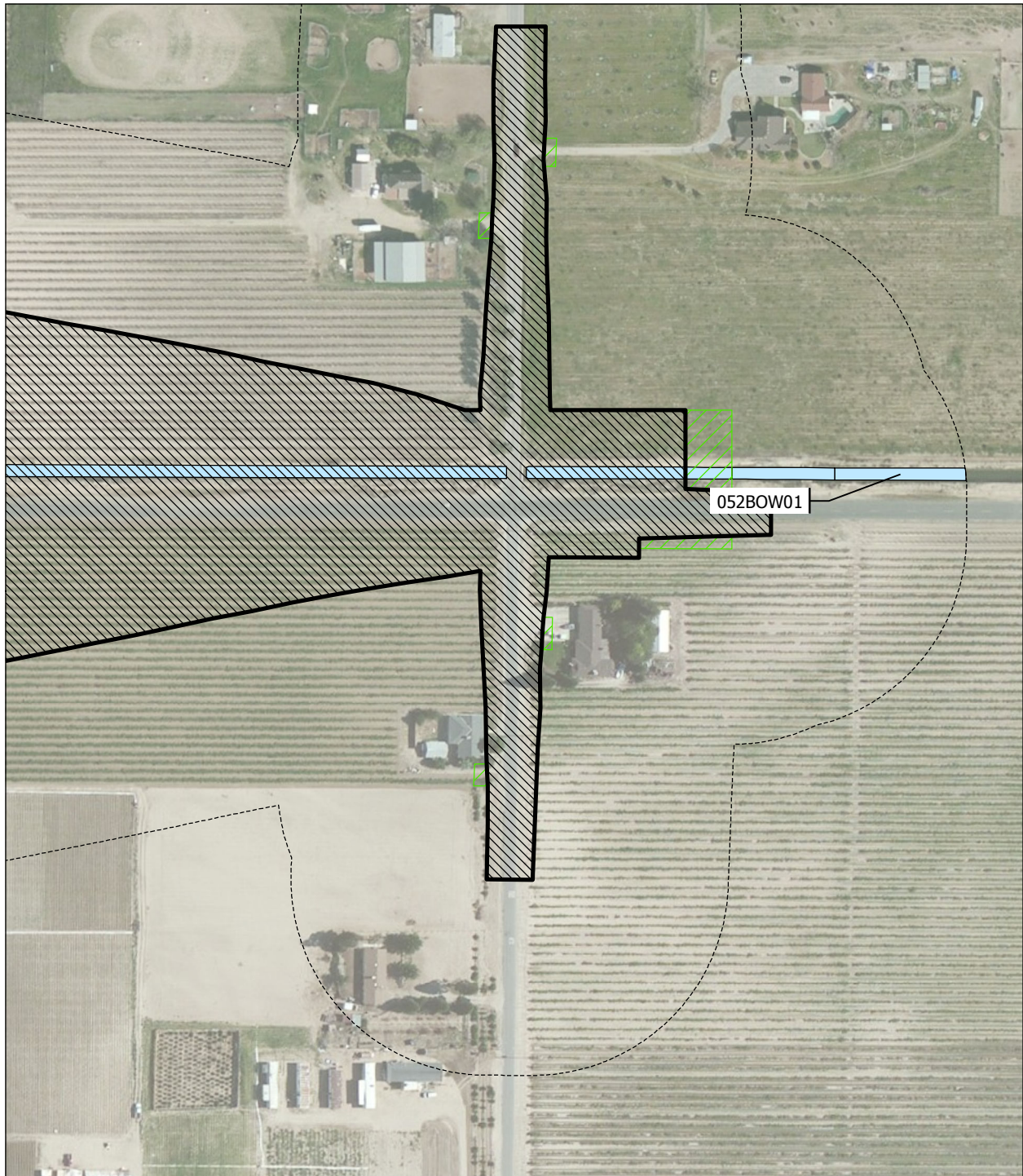
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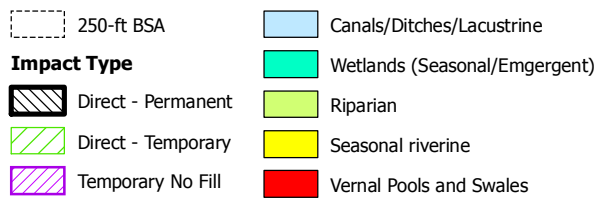
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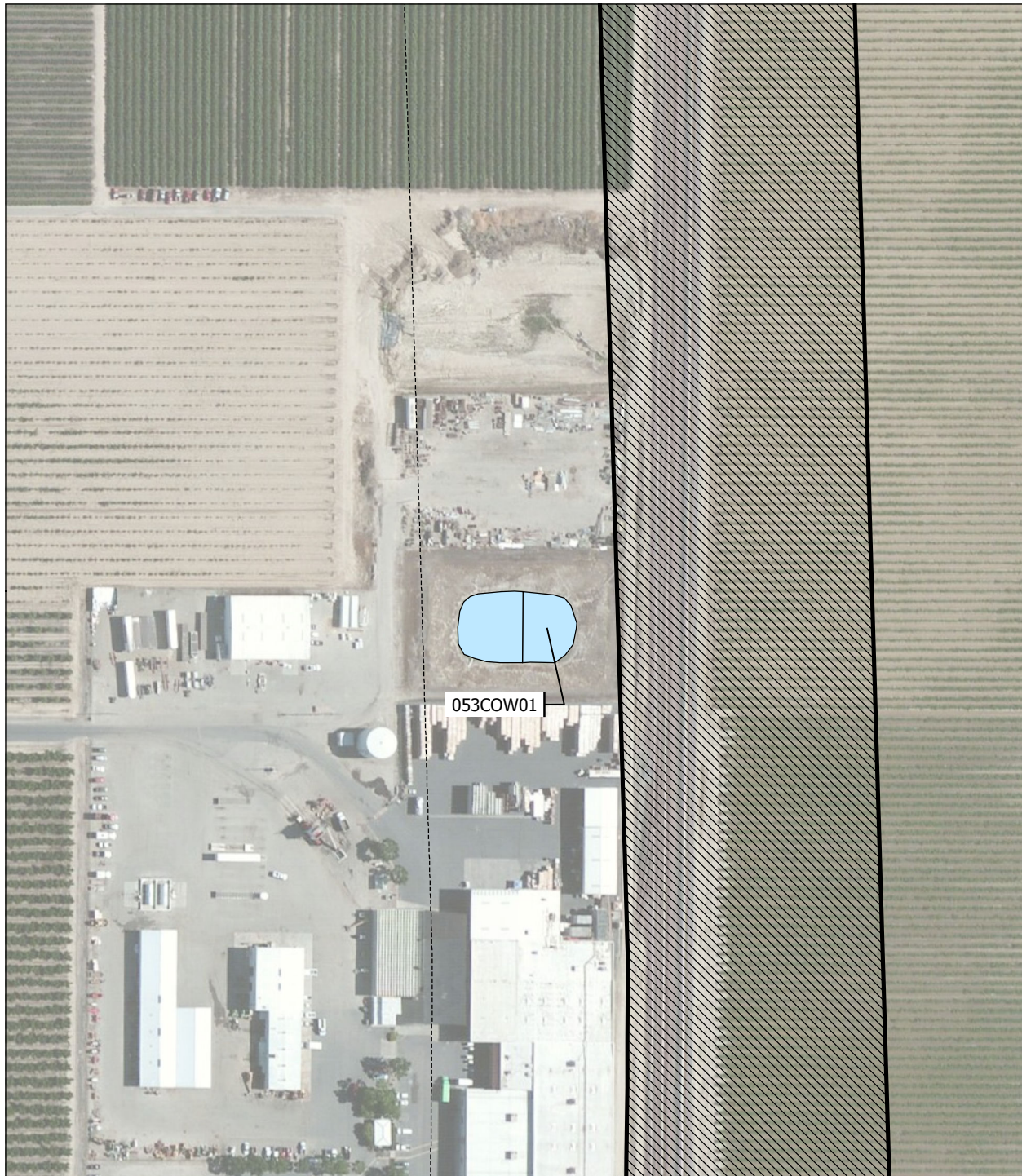
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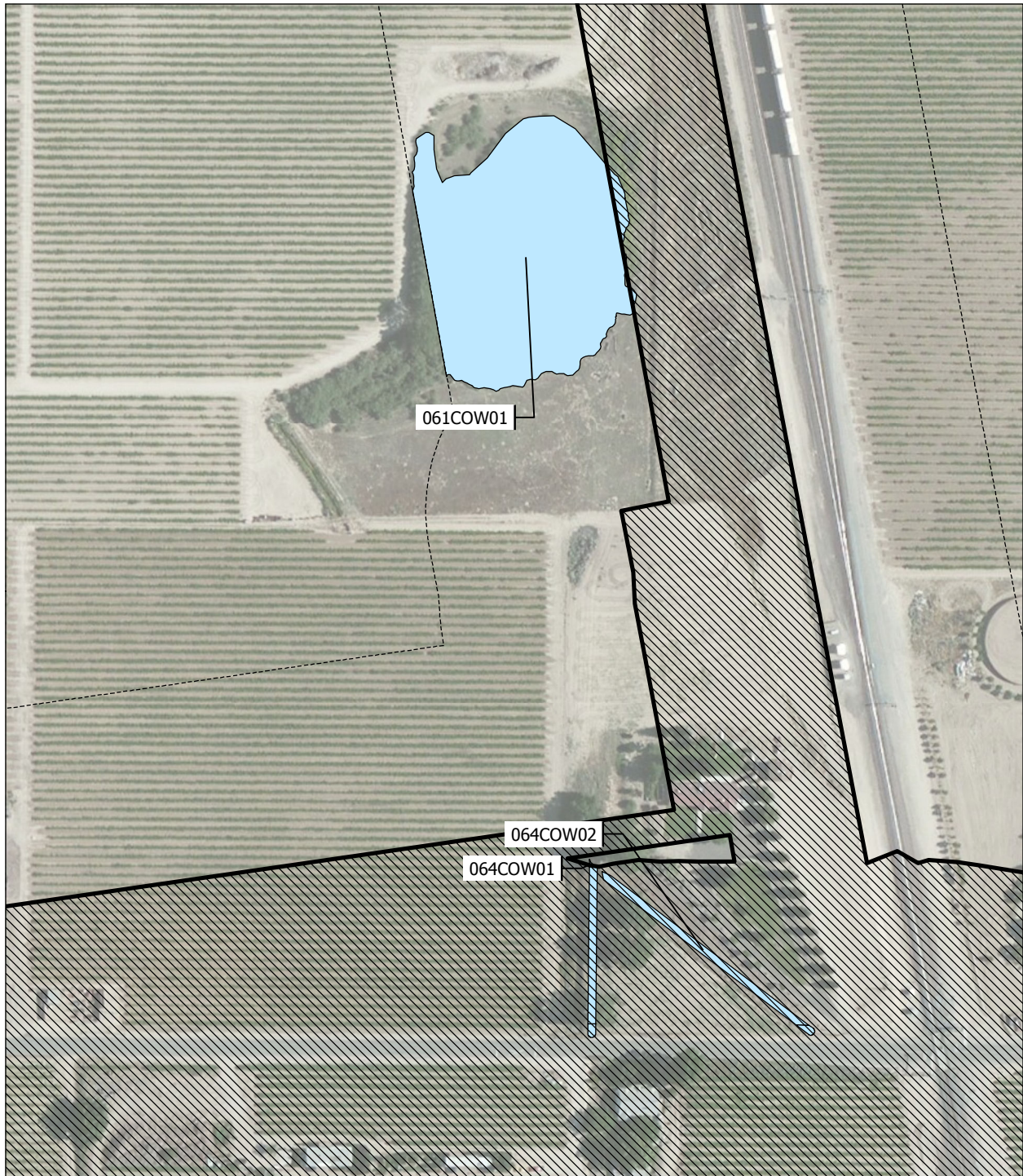


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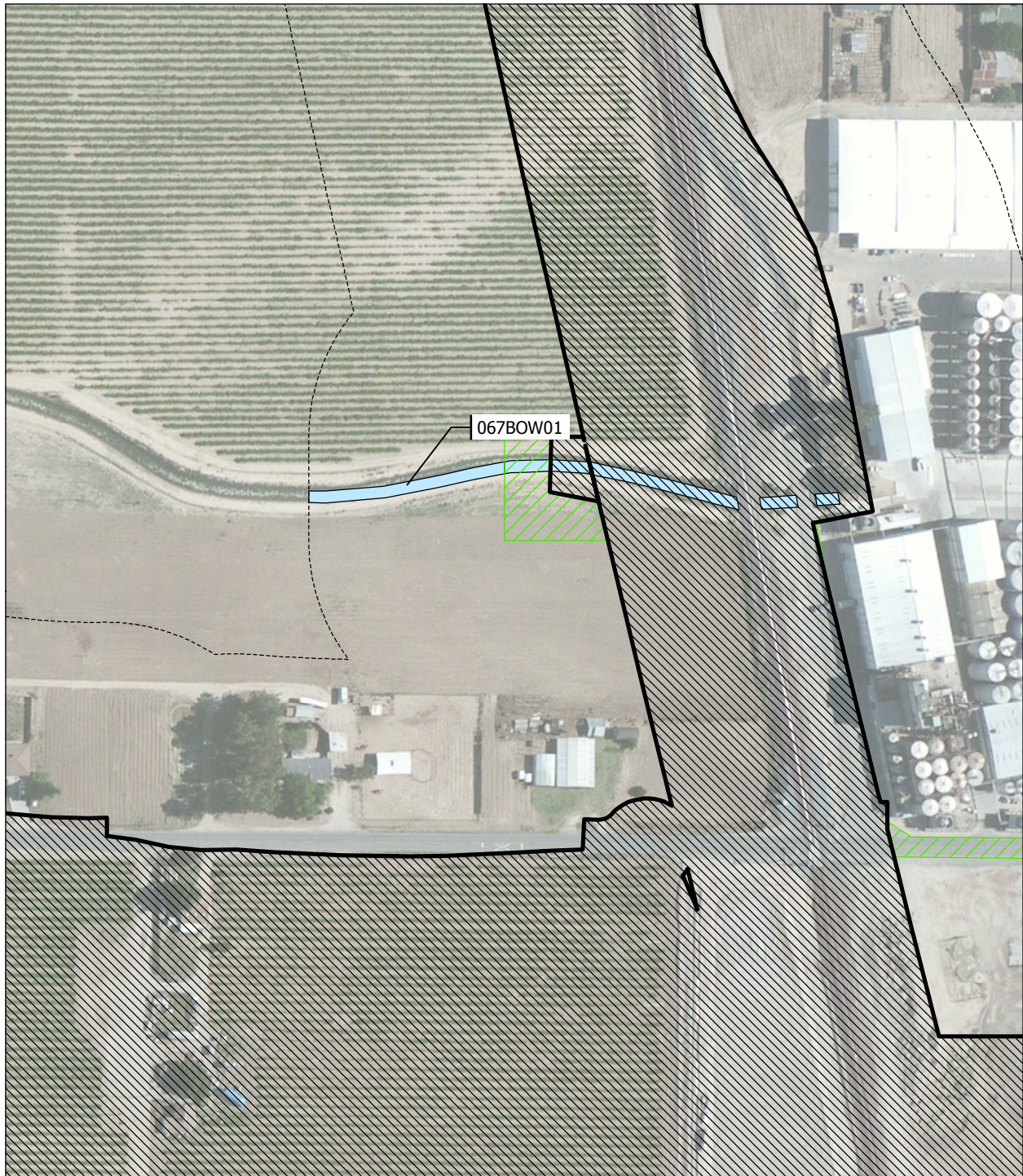


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



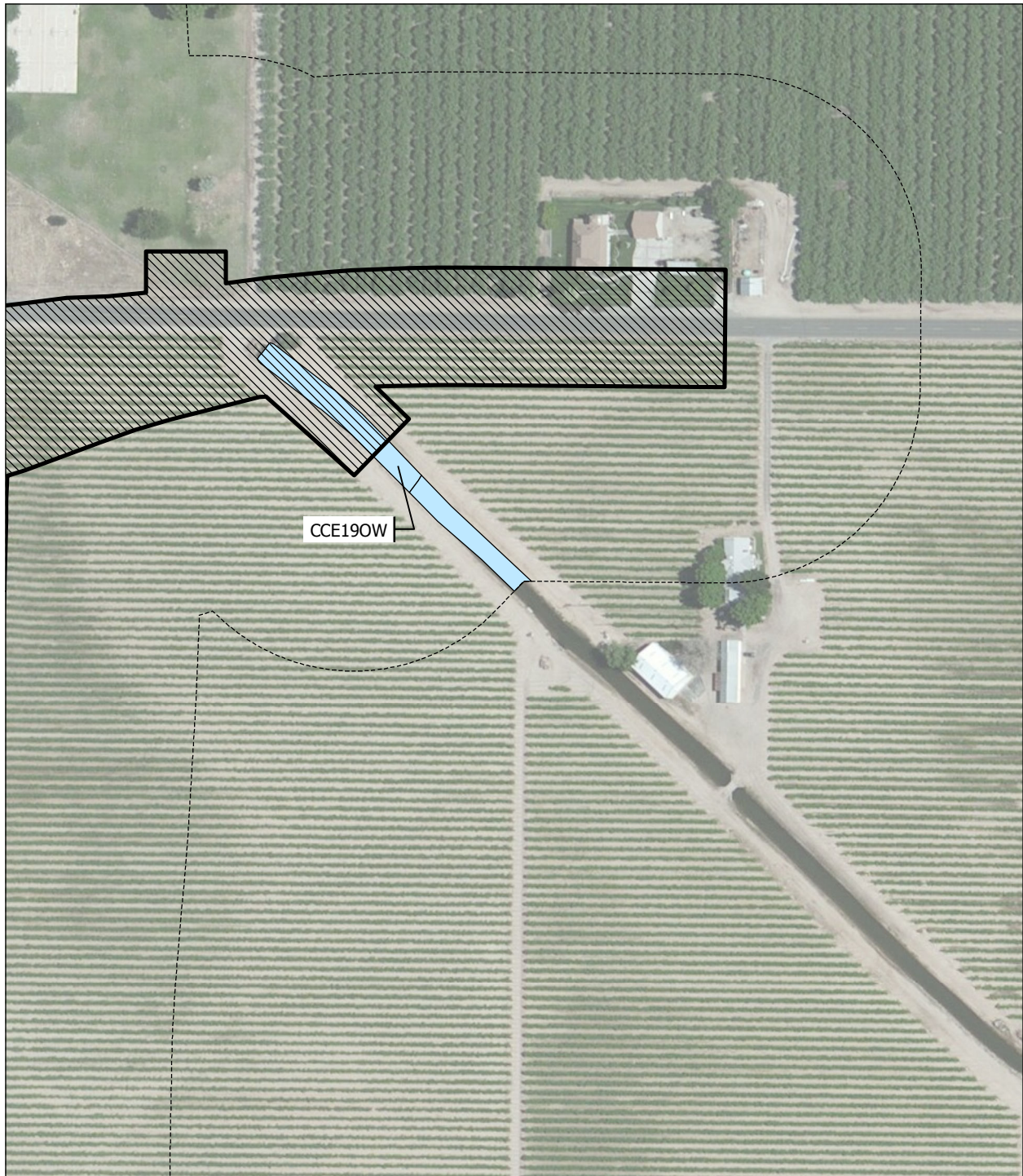
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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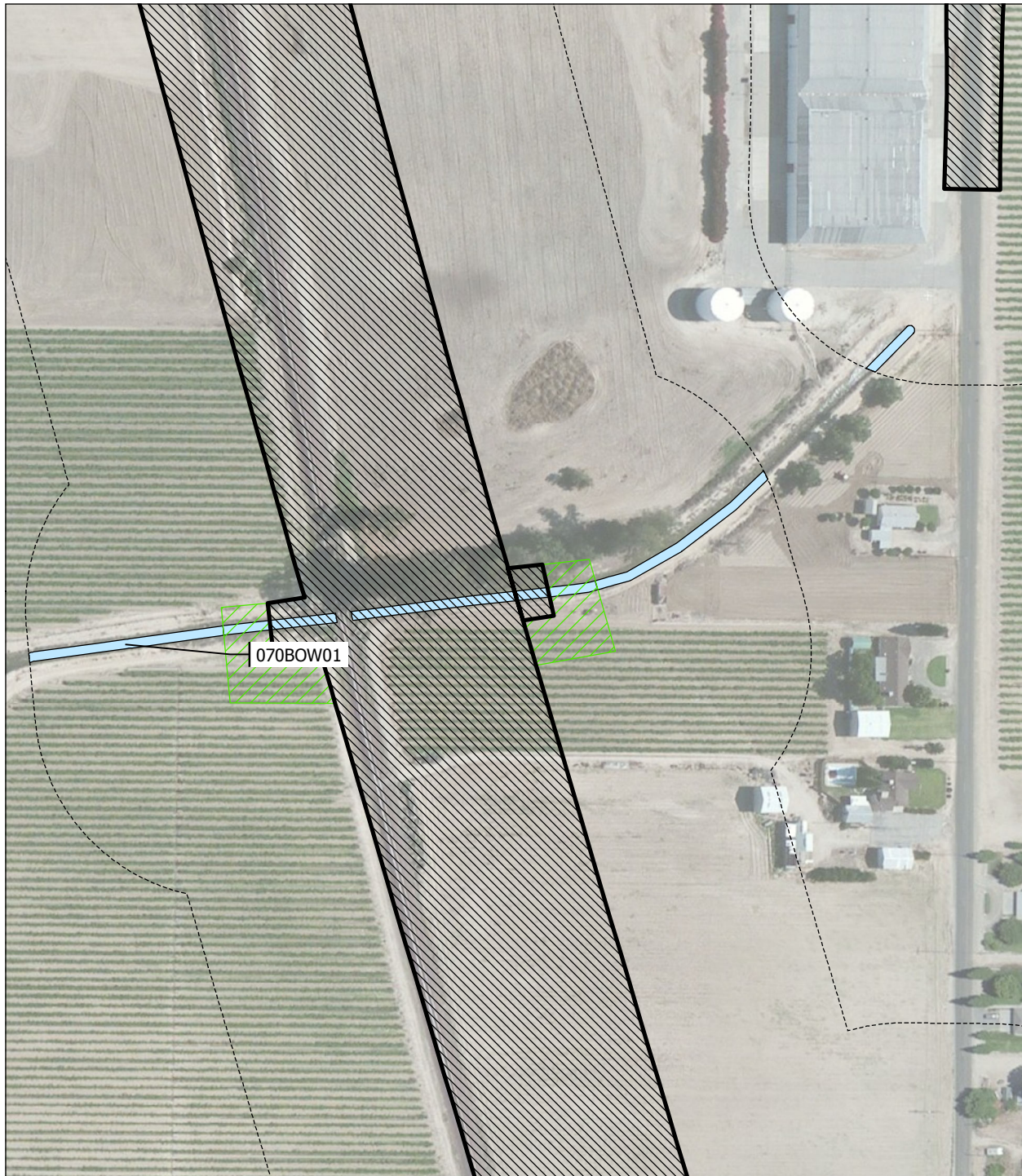


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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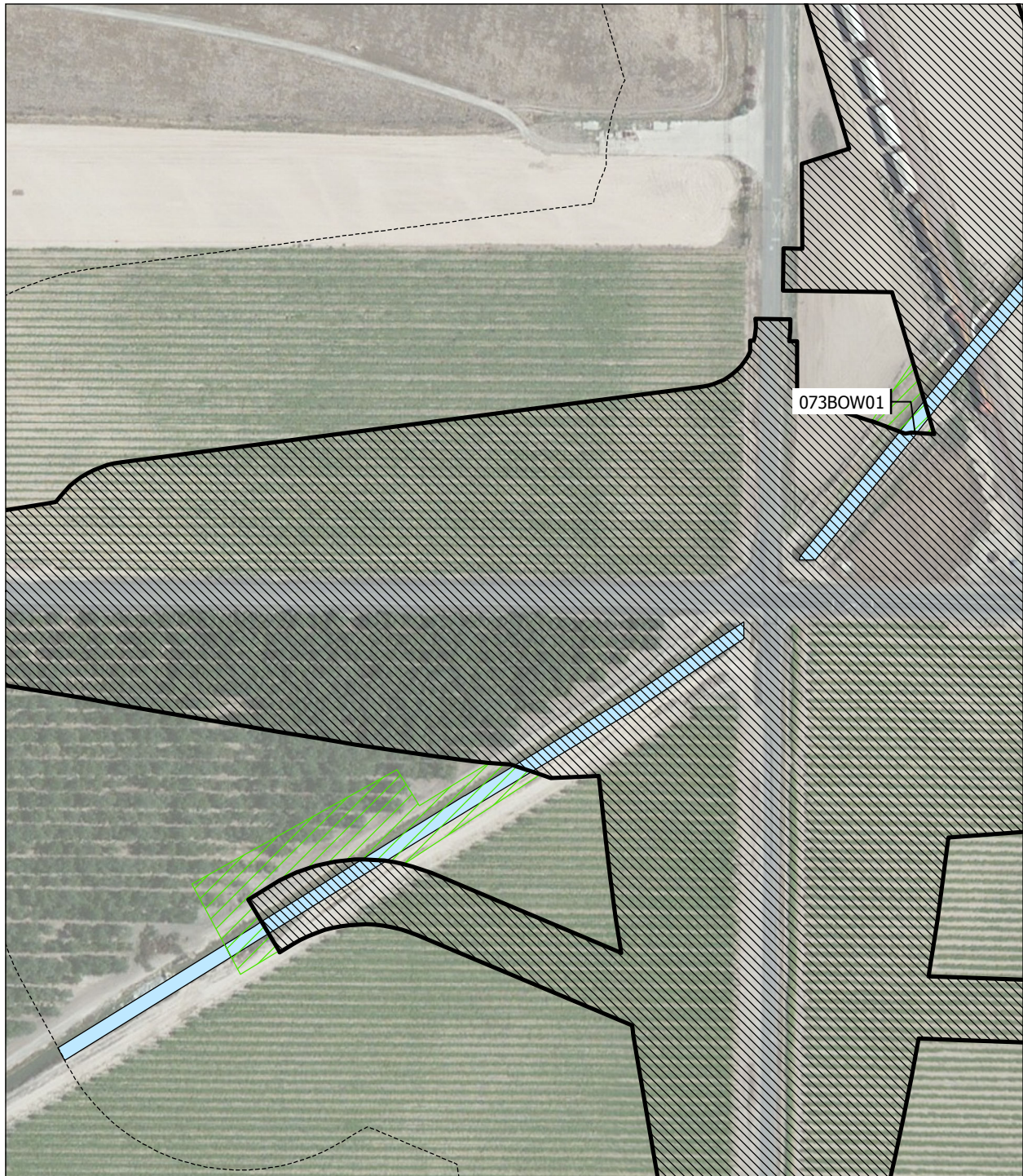


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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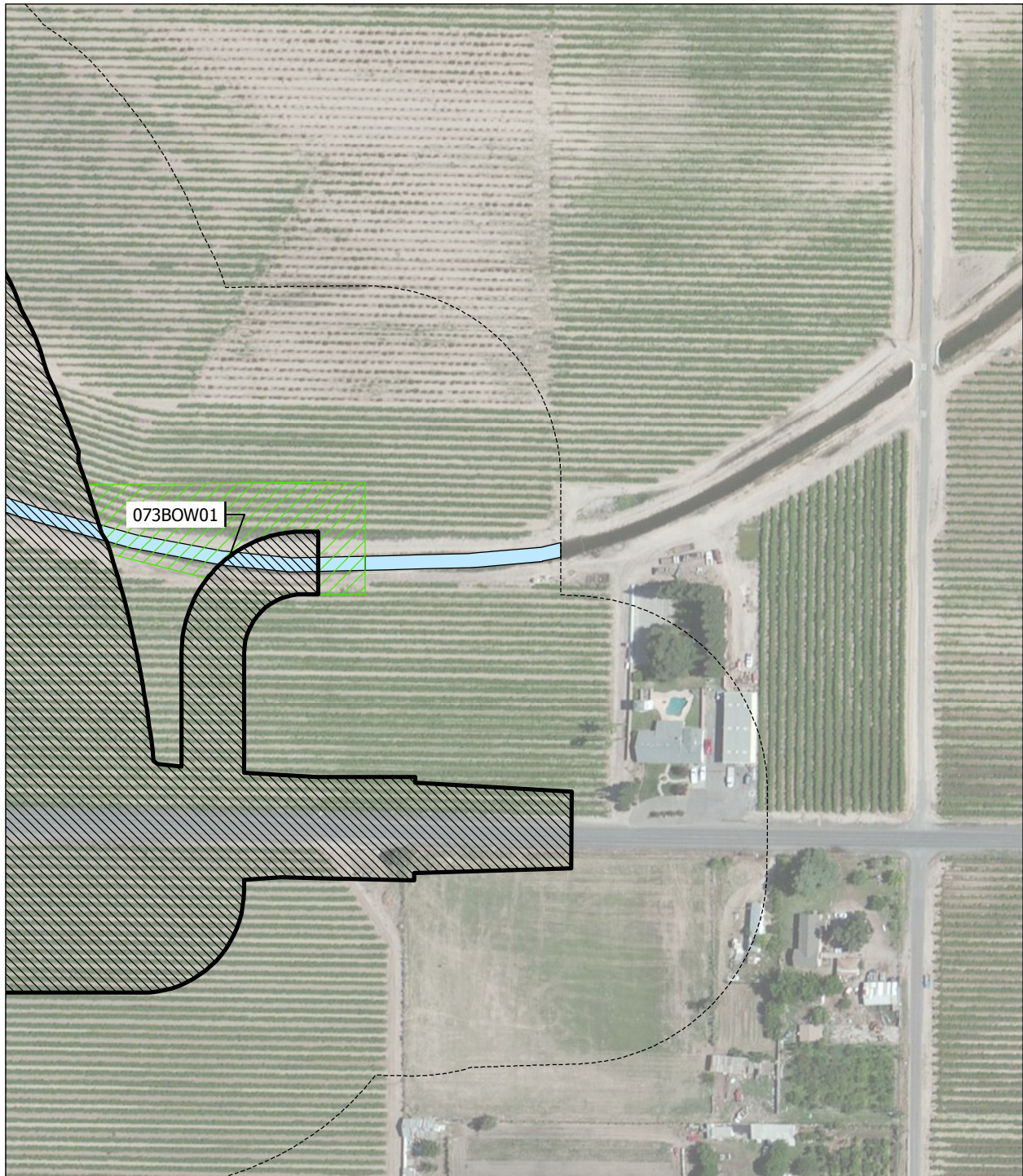


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



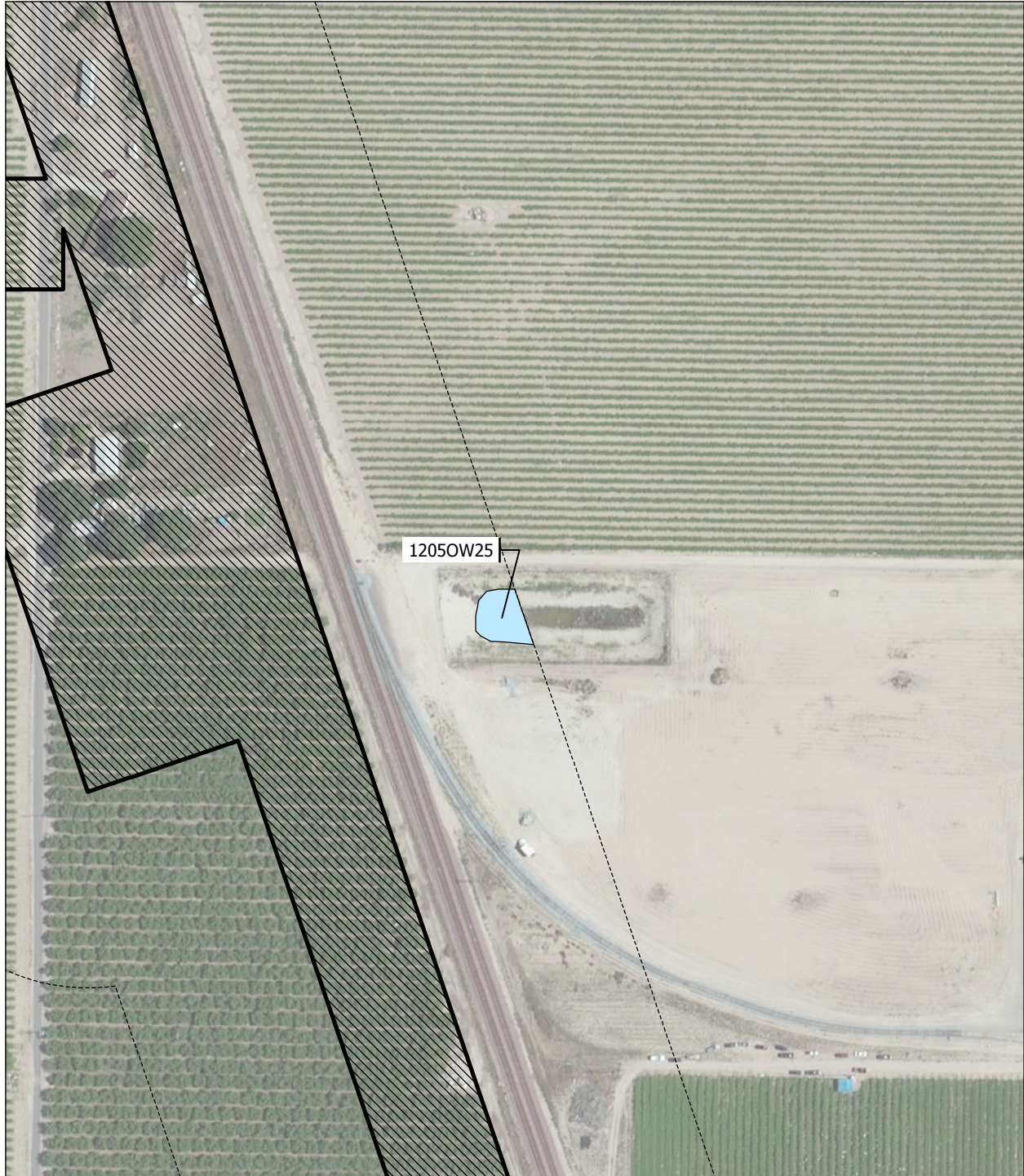
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Image source: ESRI

March 17, 2014



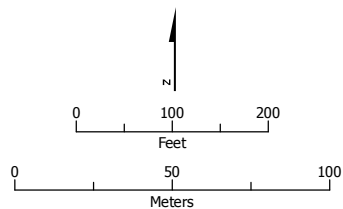
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



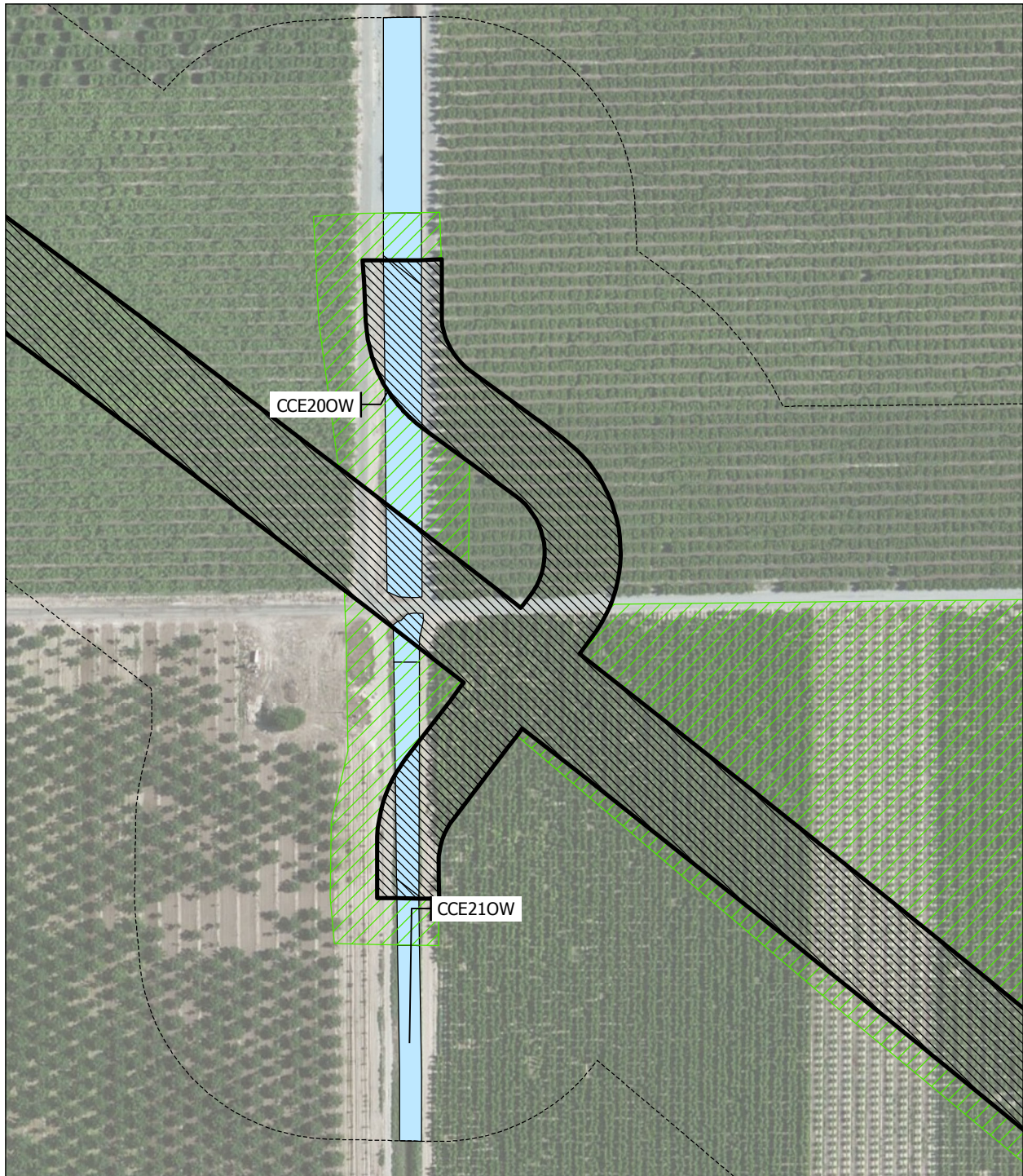
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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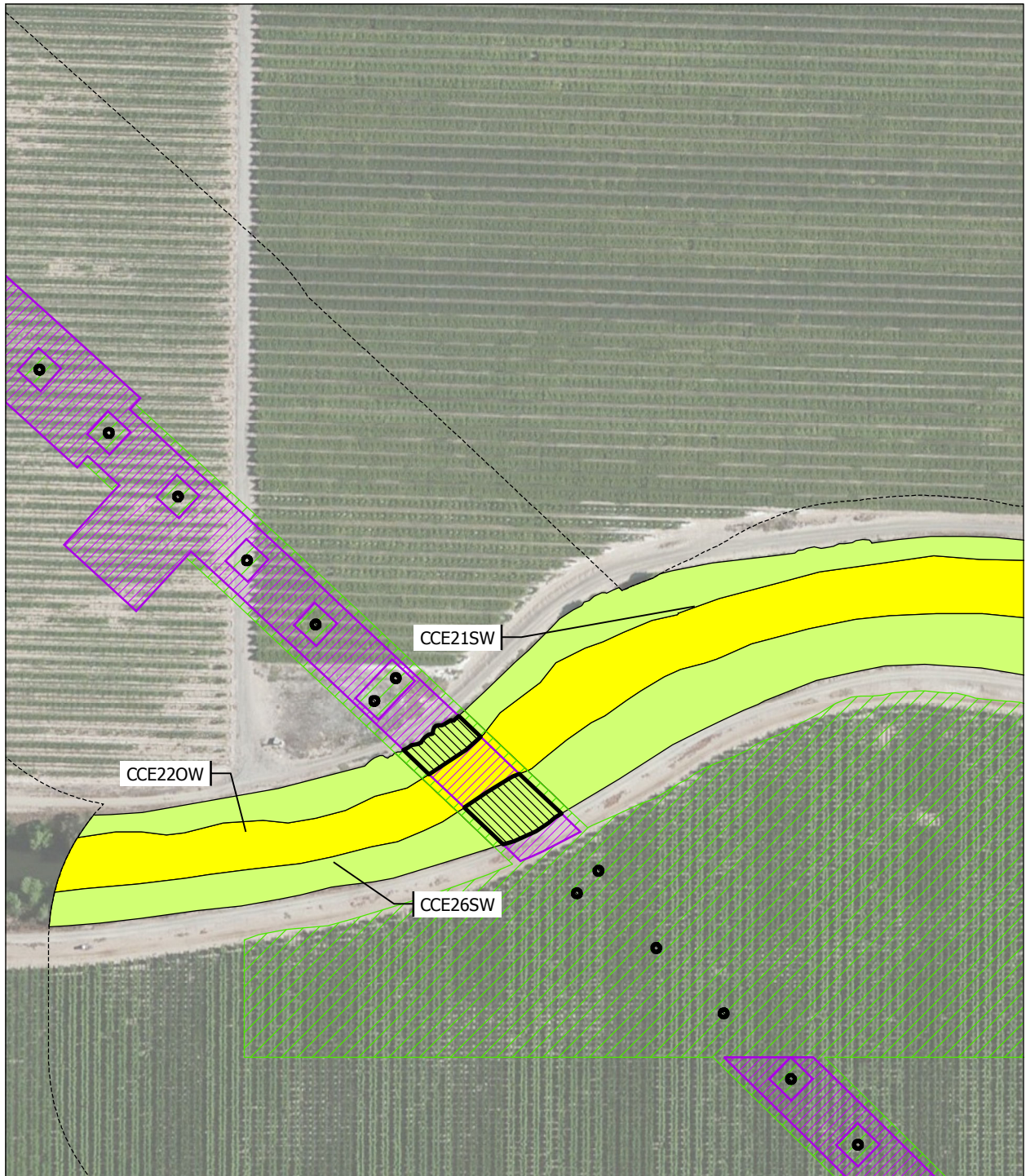


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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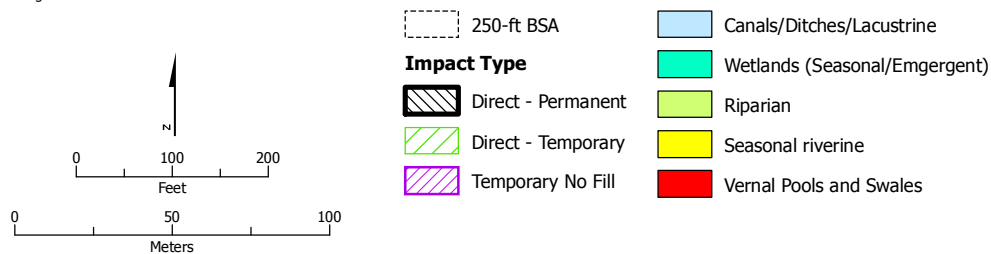


	250-ft BSA		Canals/Ditches/Lacustrine
	Direct - Permanent		Wetlands (Seasonal/Emergent)
	Direct - Temporary		Riparian
	Temporary No Fill		Seasonal riverine
			Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
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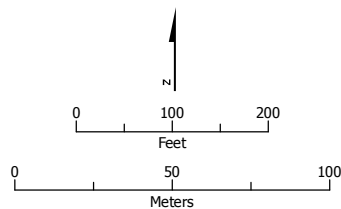
March 17, 2014





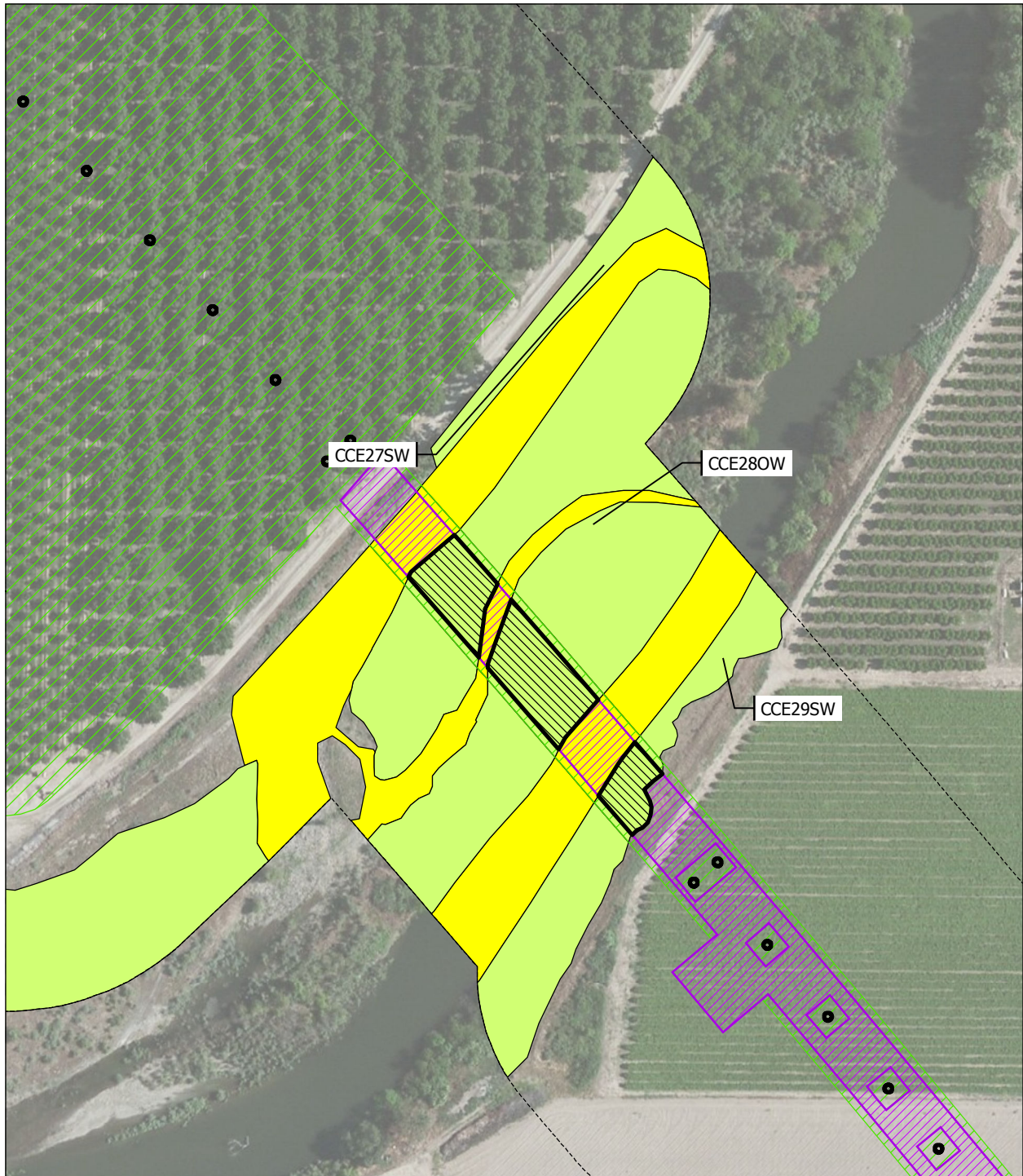
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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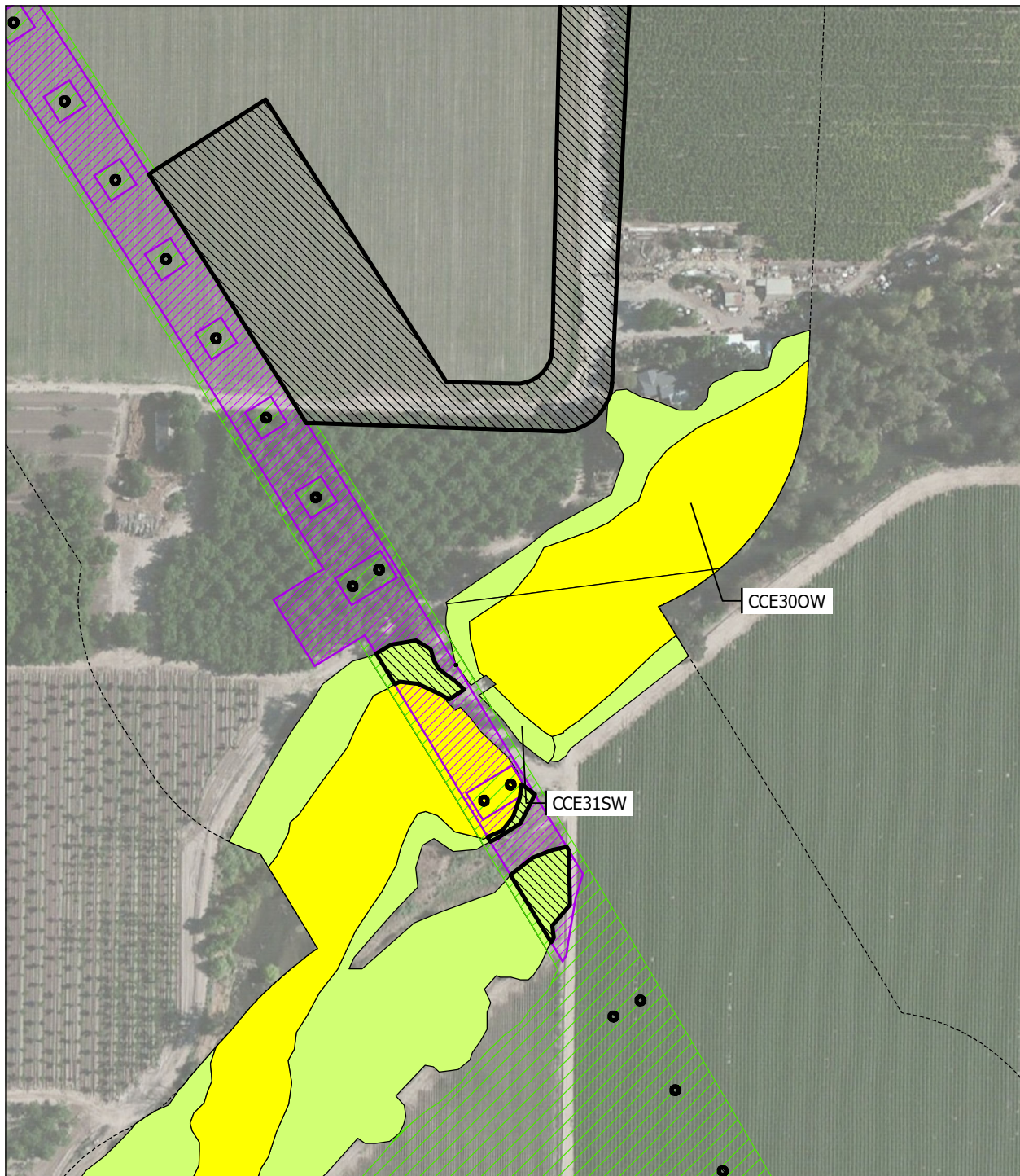


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

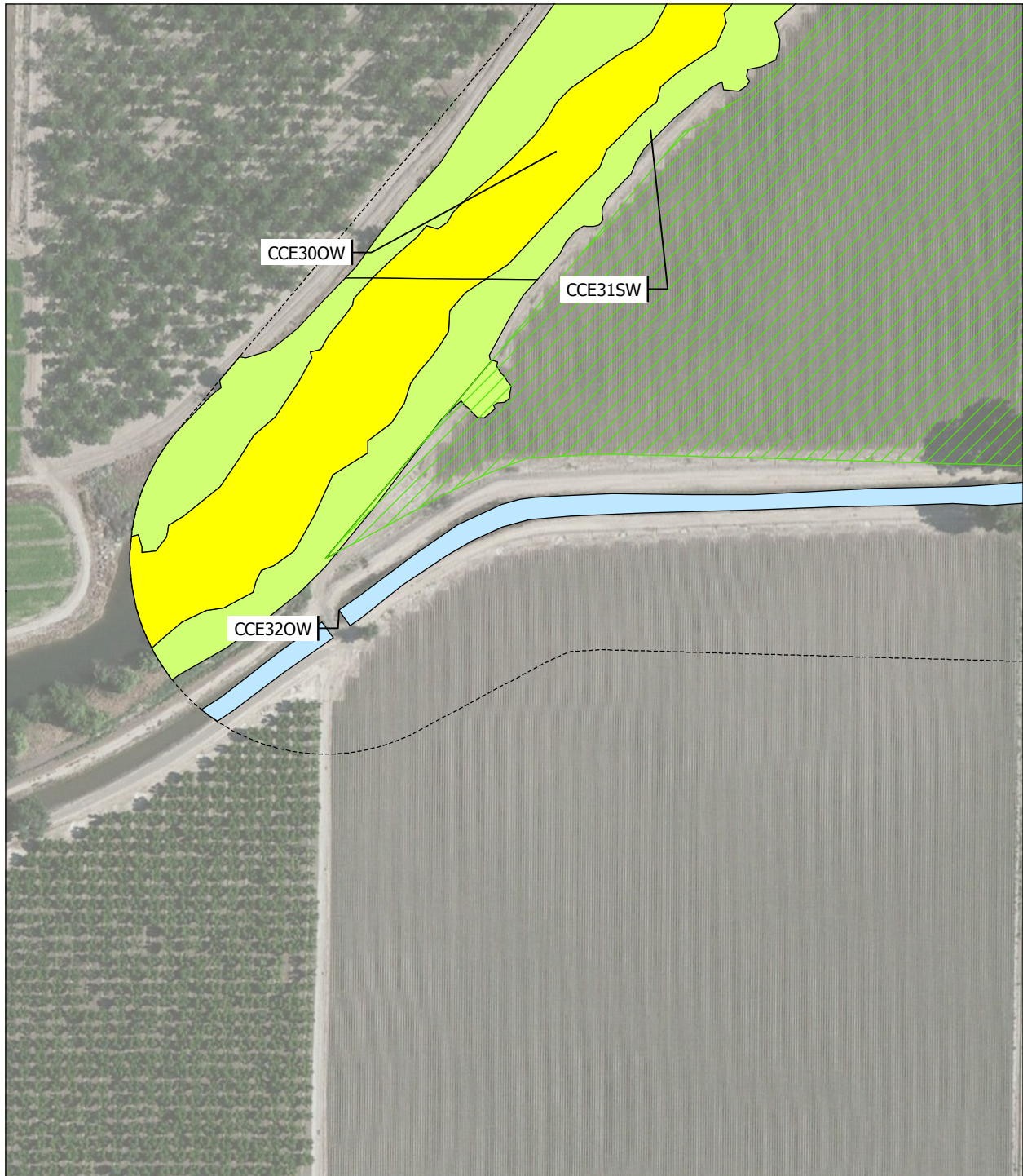


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Image source: ESRI

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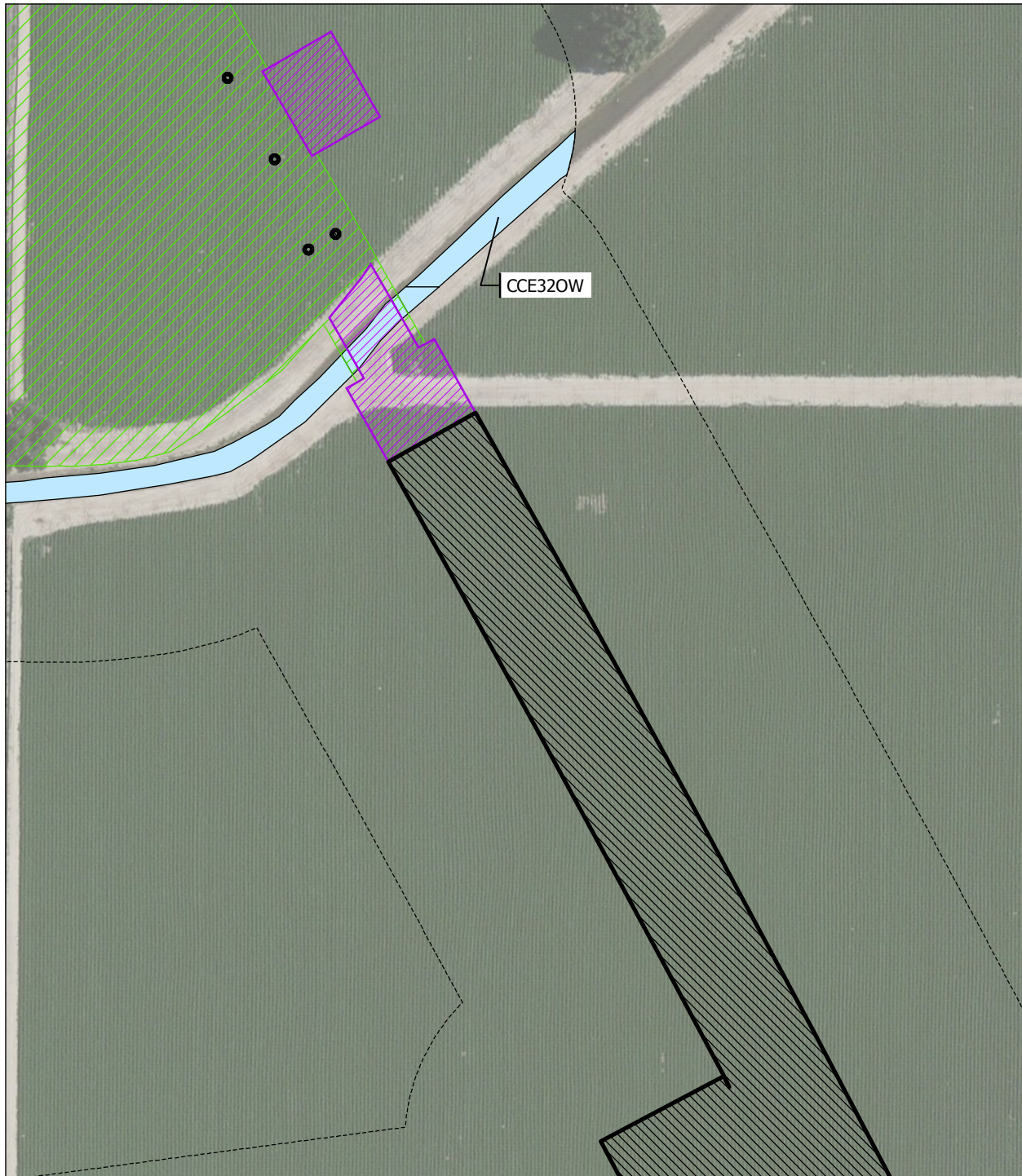


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



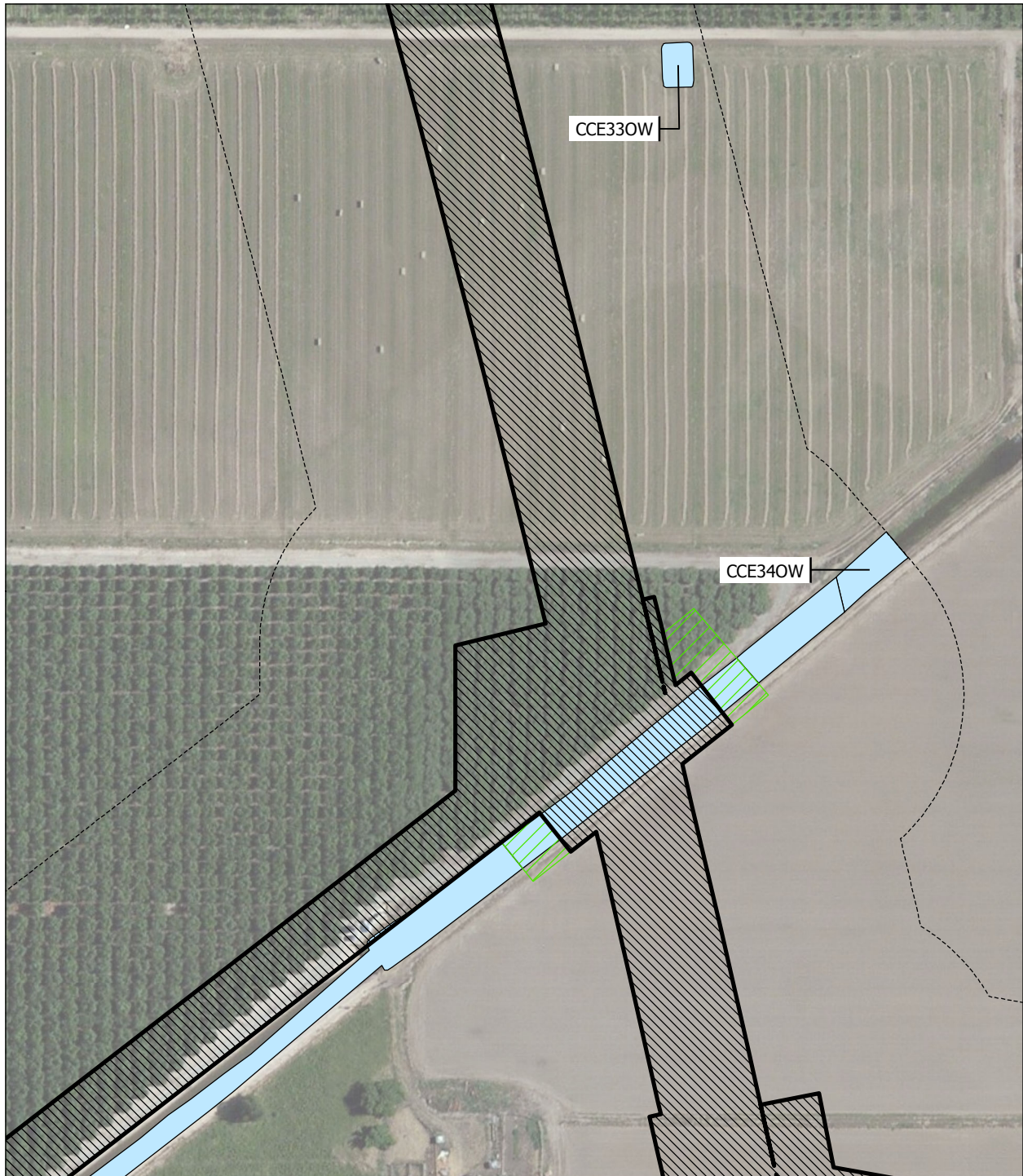
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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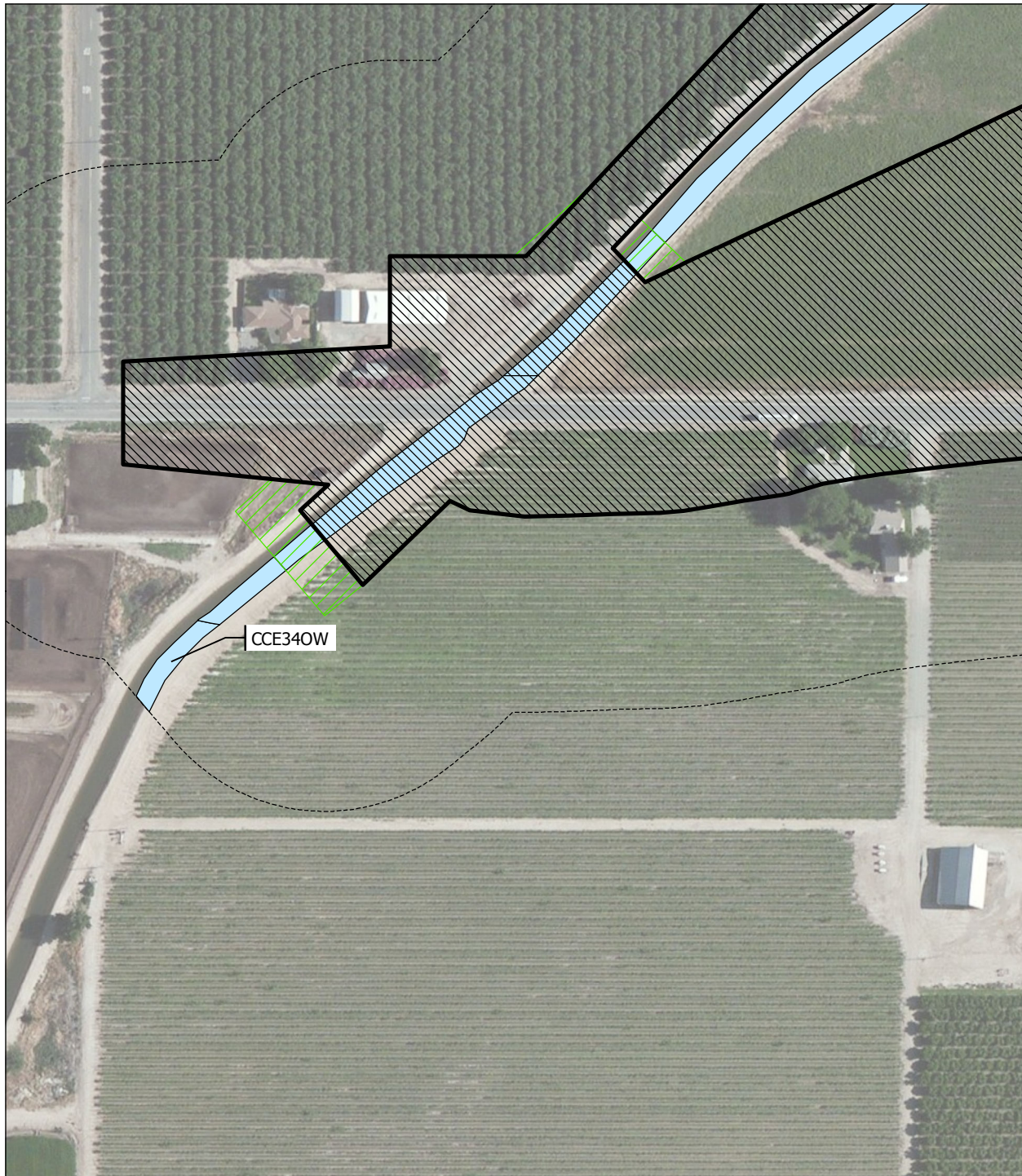


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



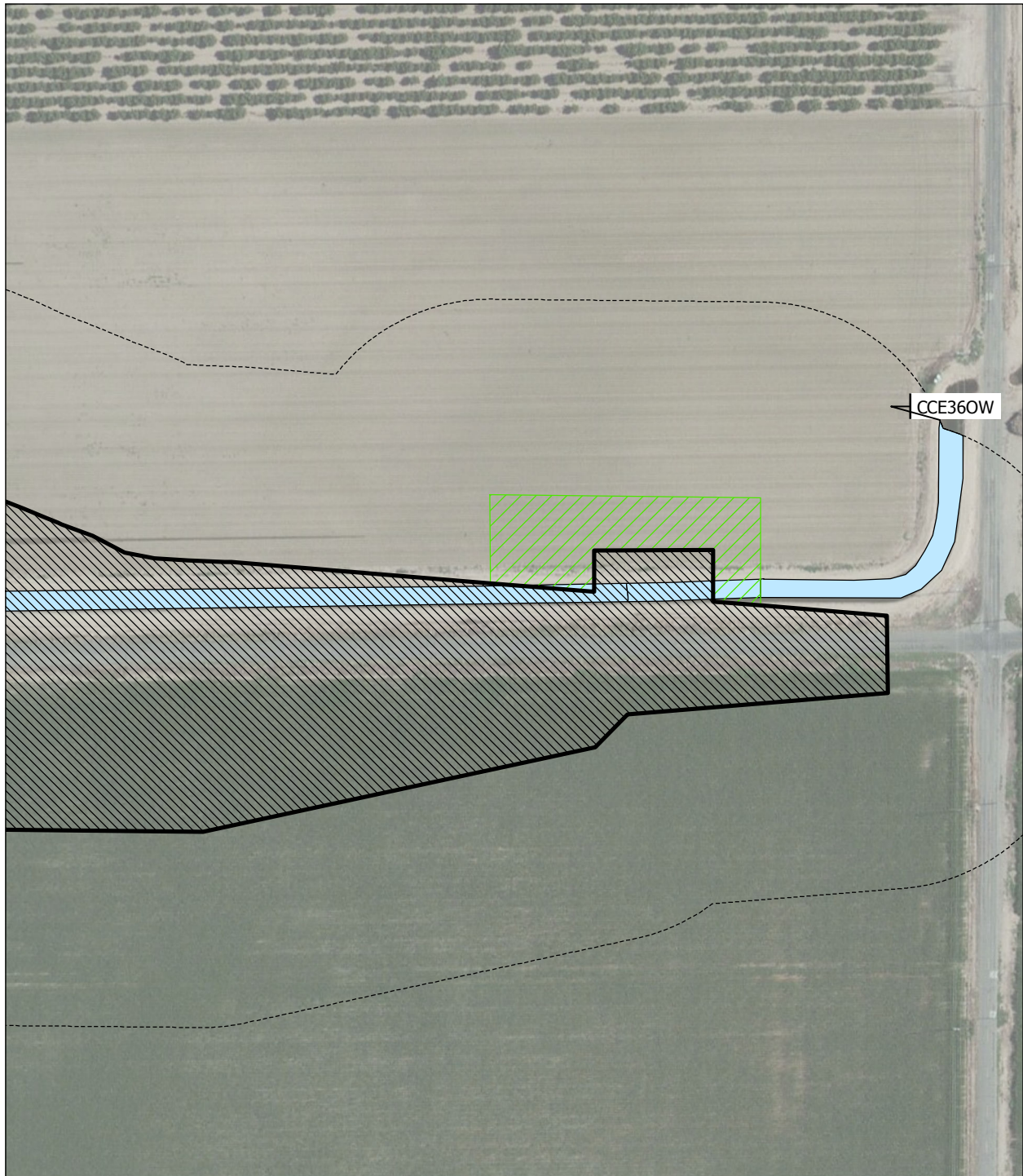
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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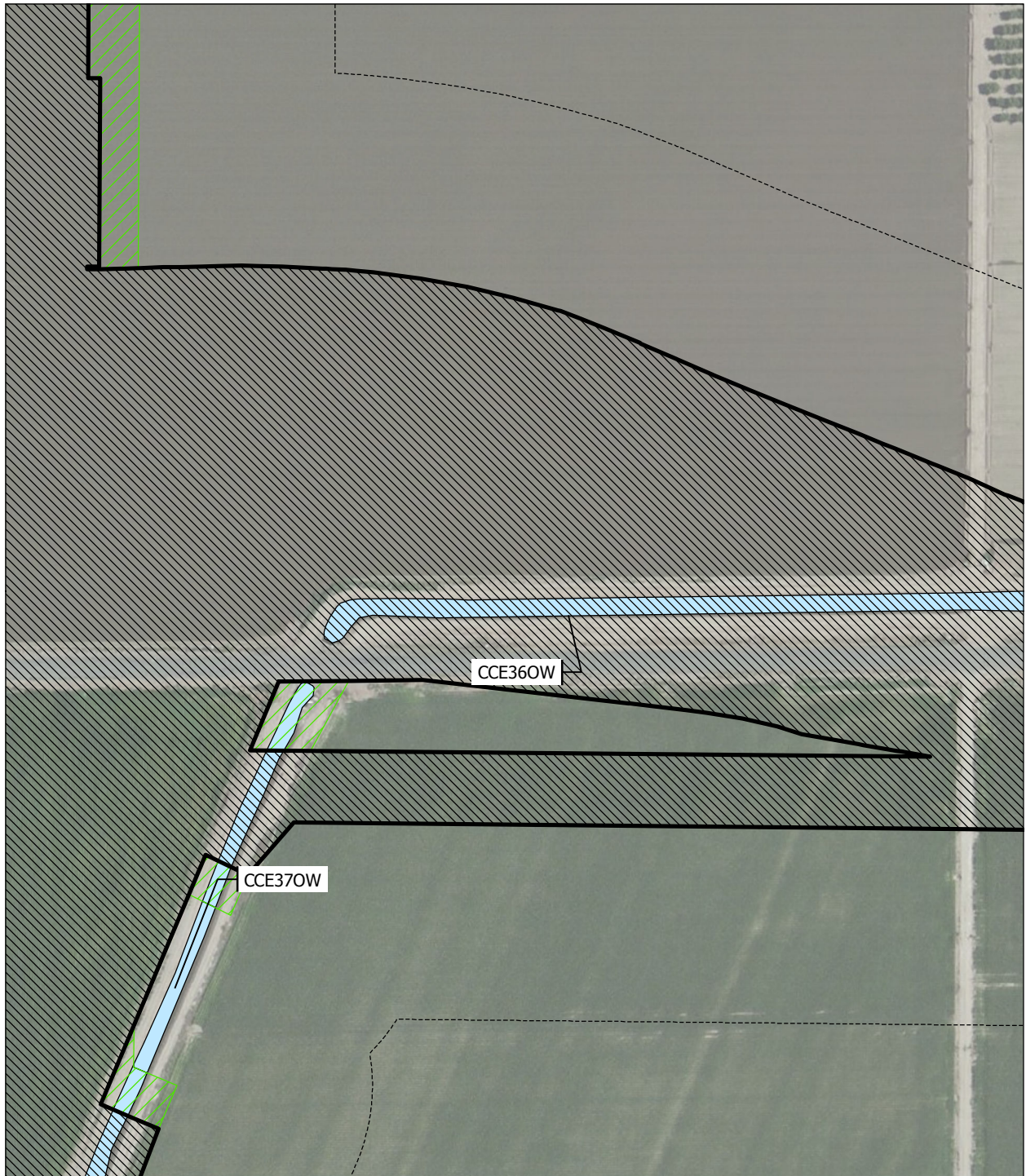


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



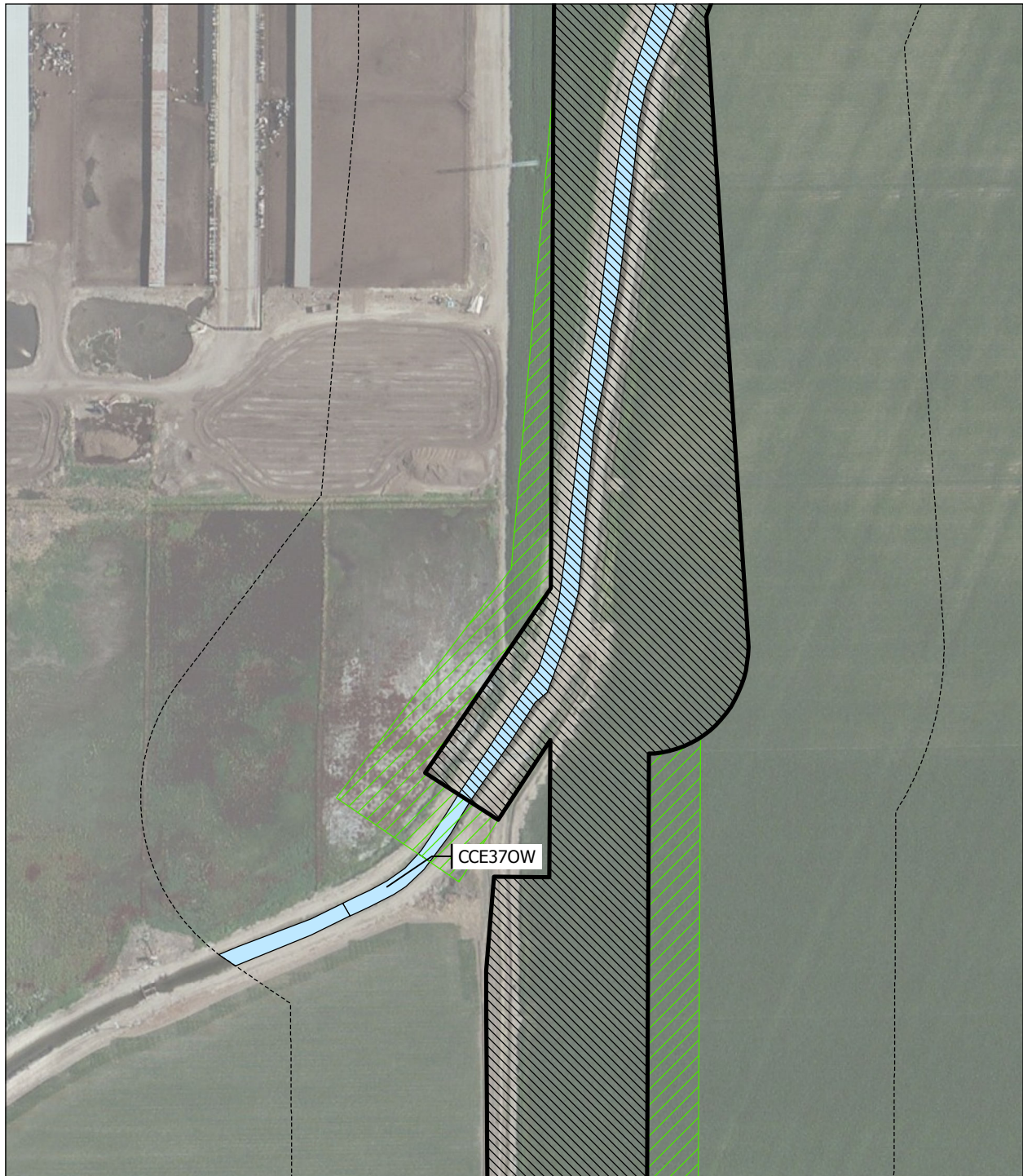
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



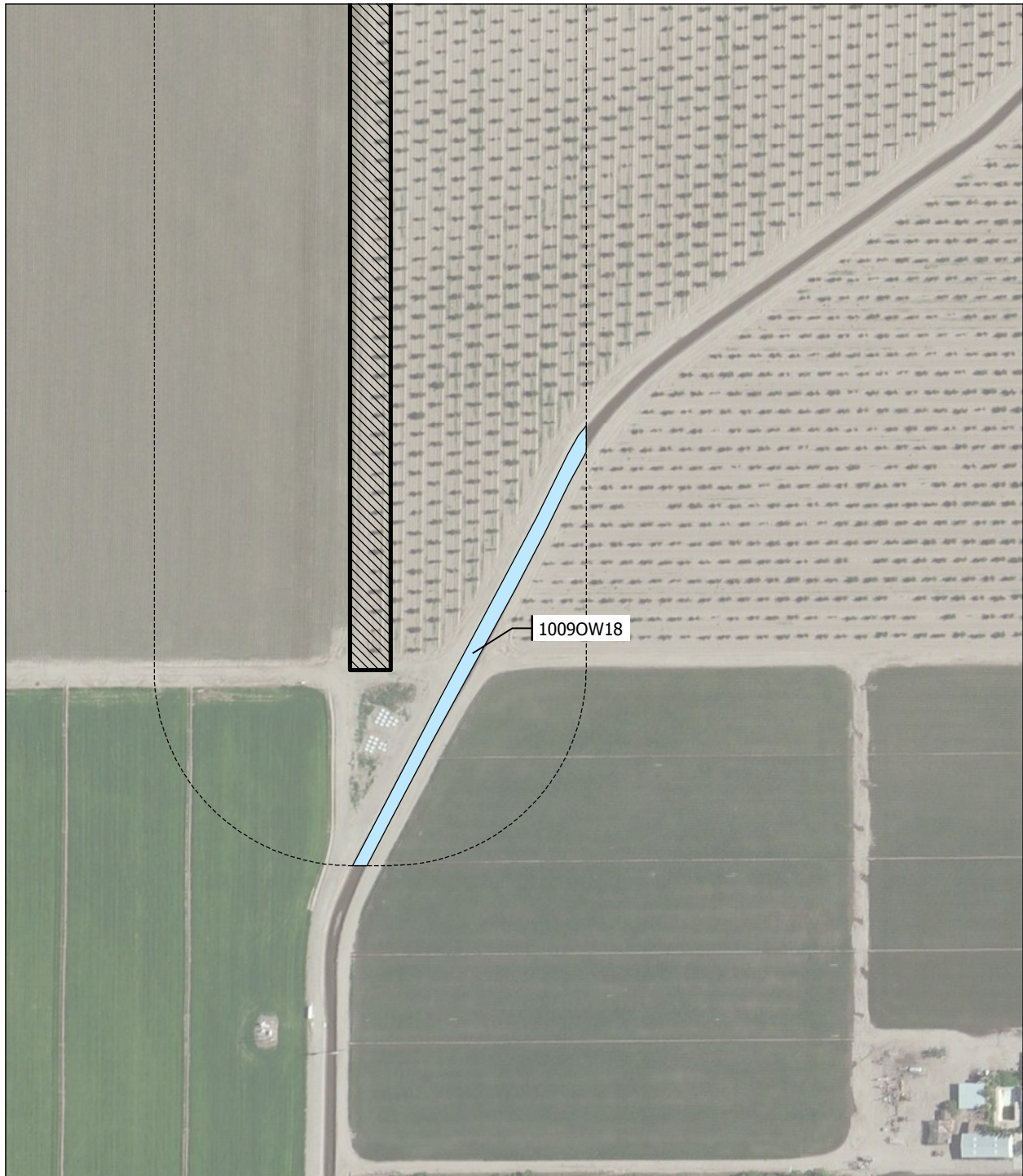
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March 17, 2014



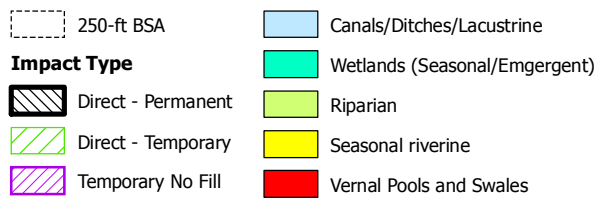
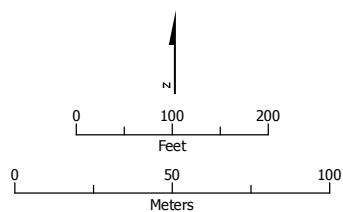
	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales

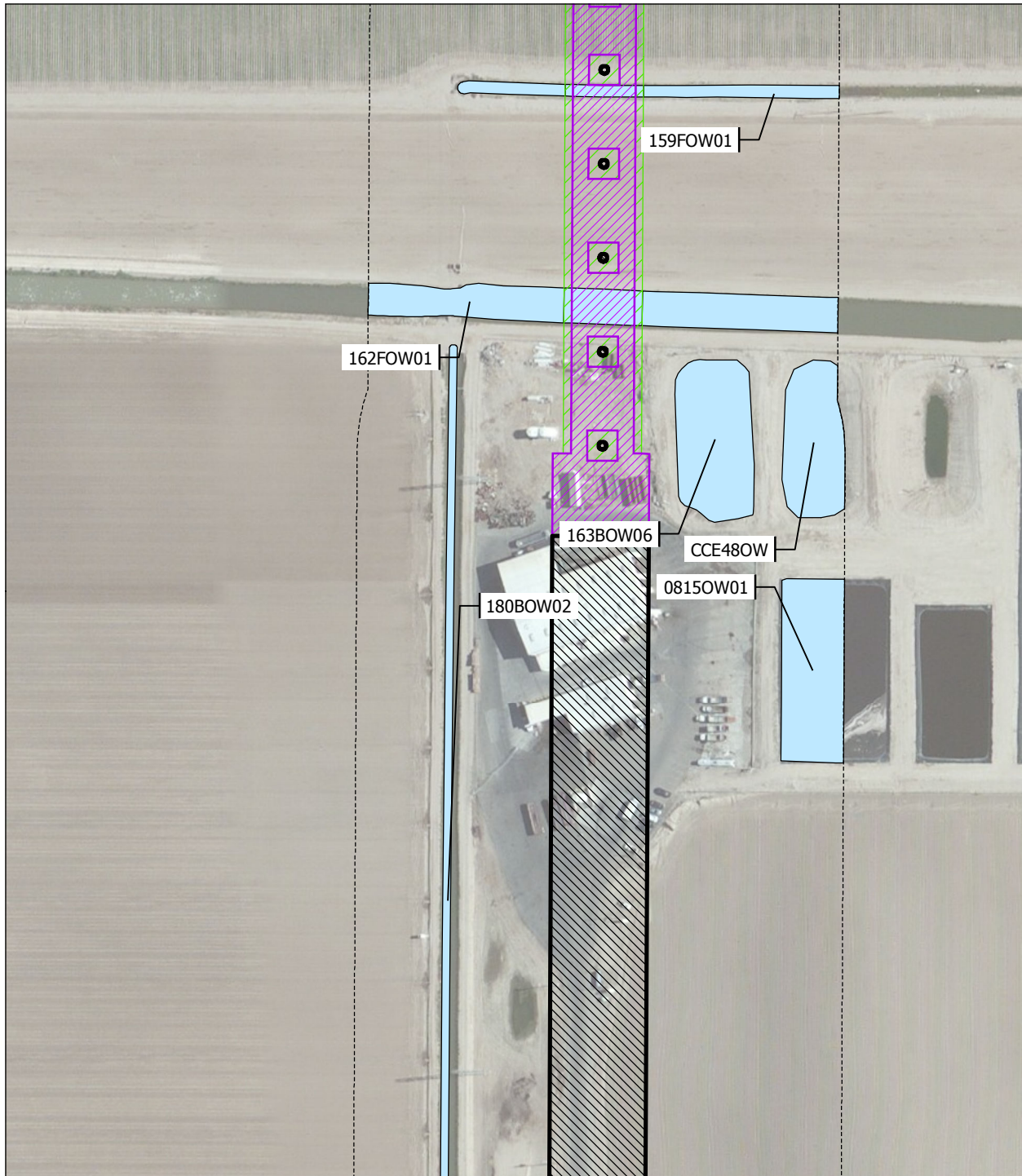
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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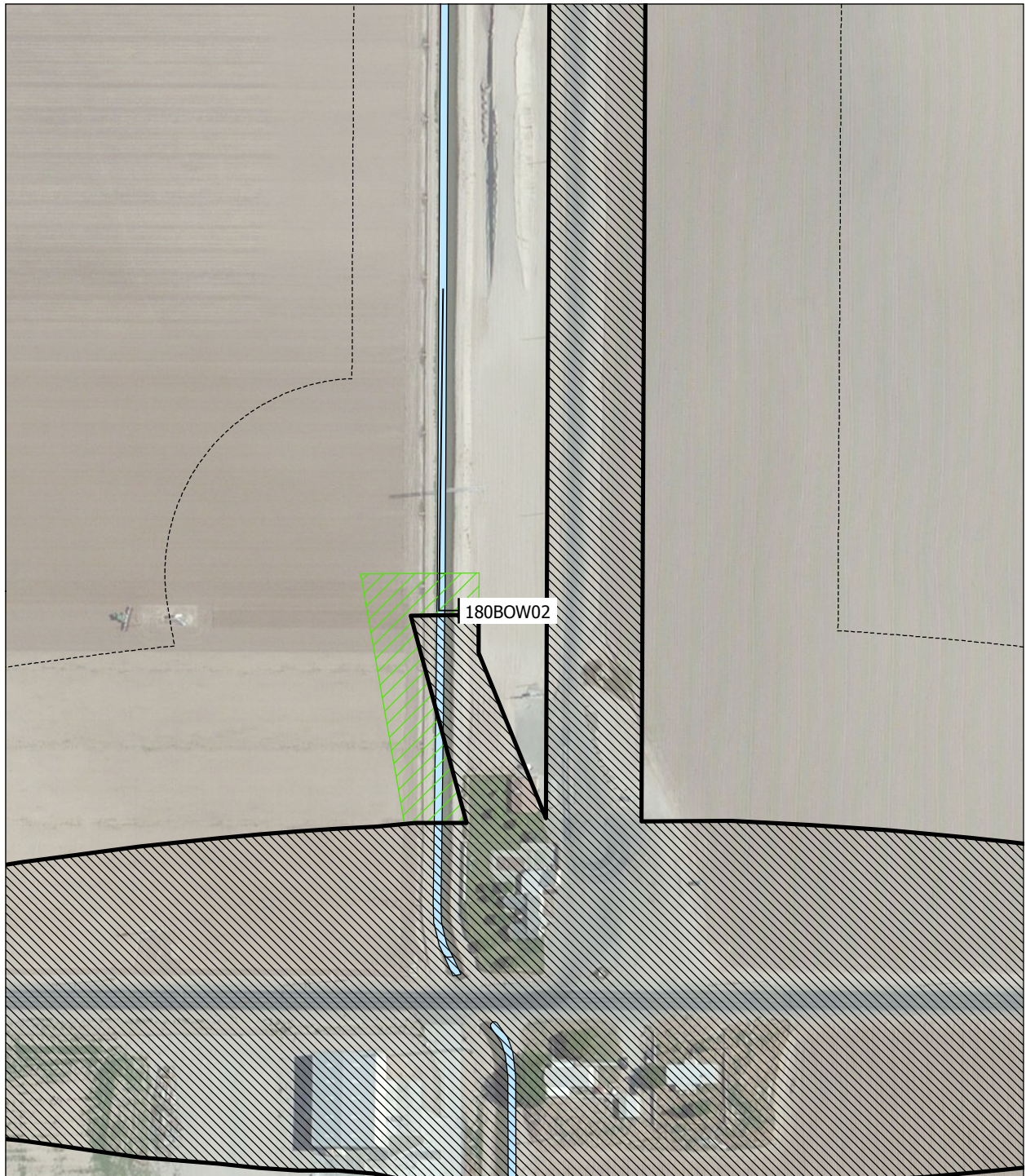
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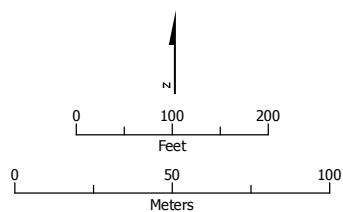
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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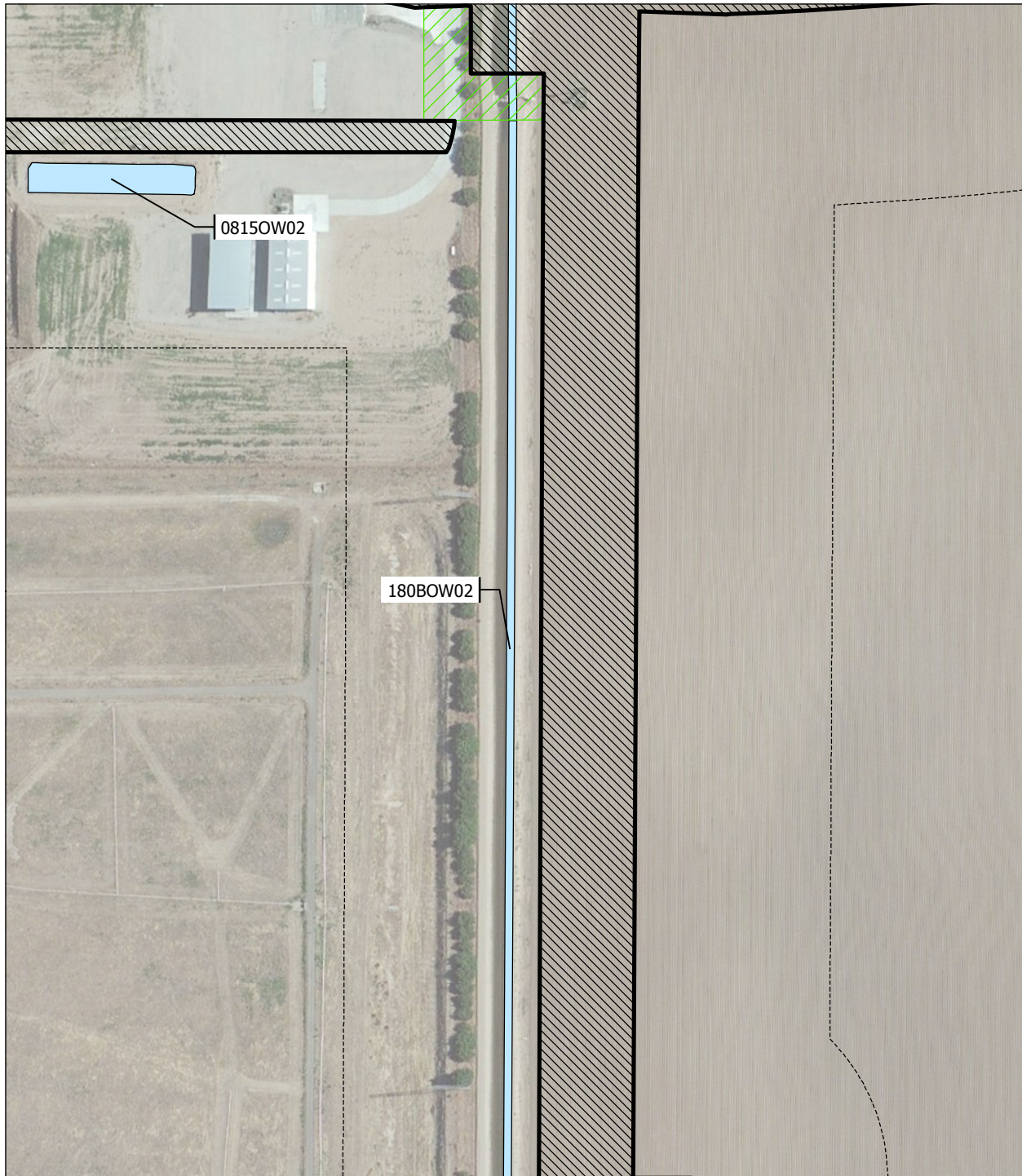
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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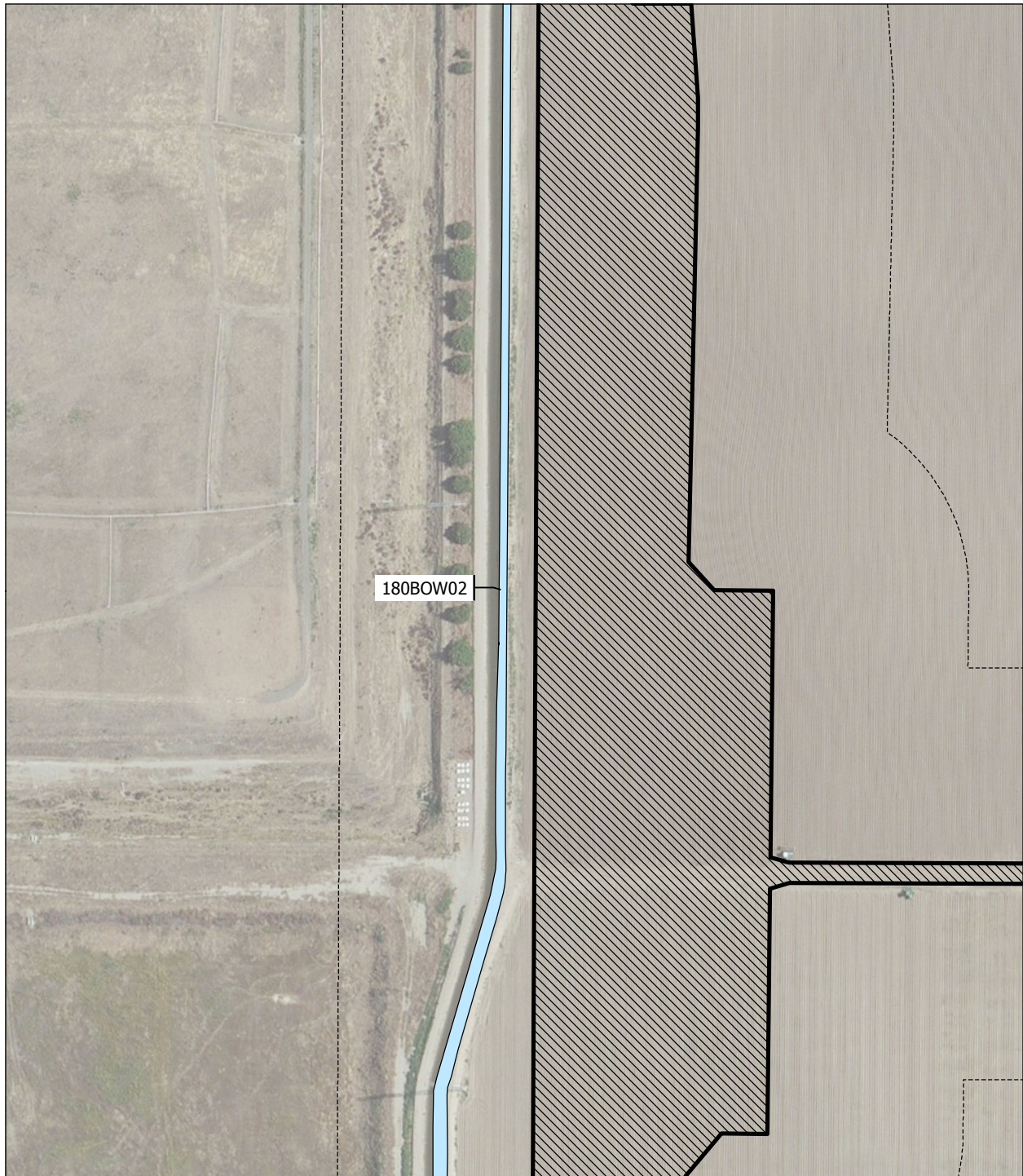
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Image source: ESRI

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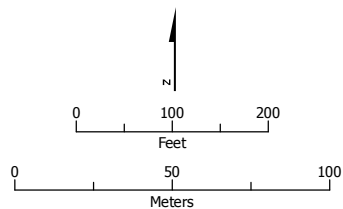
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

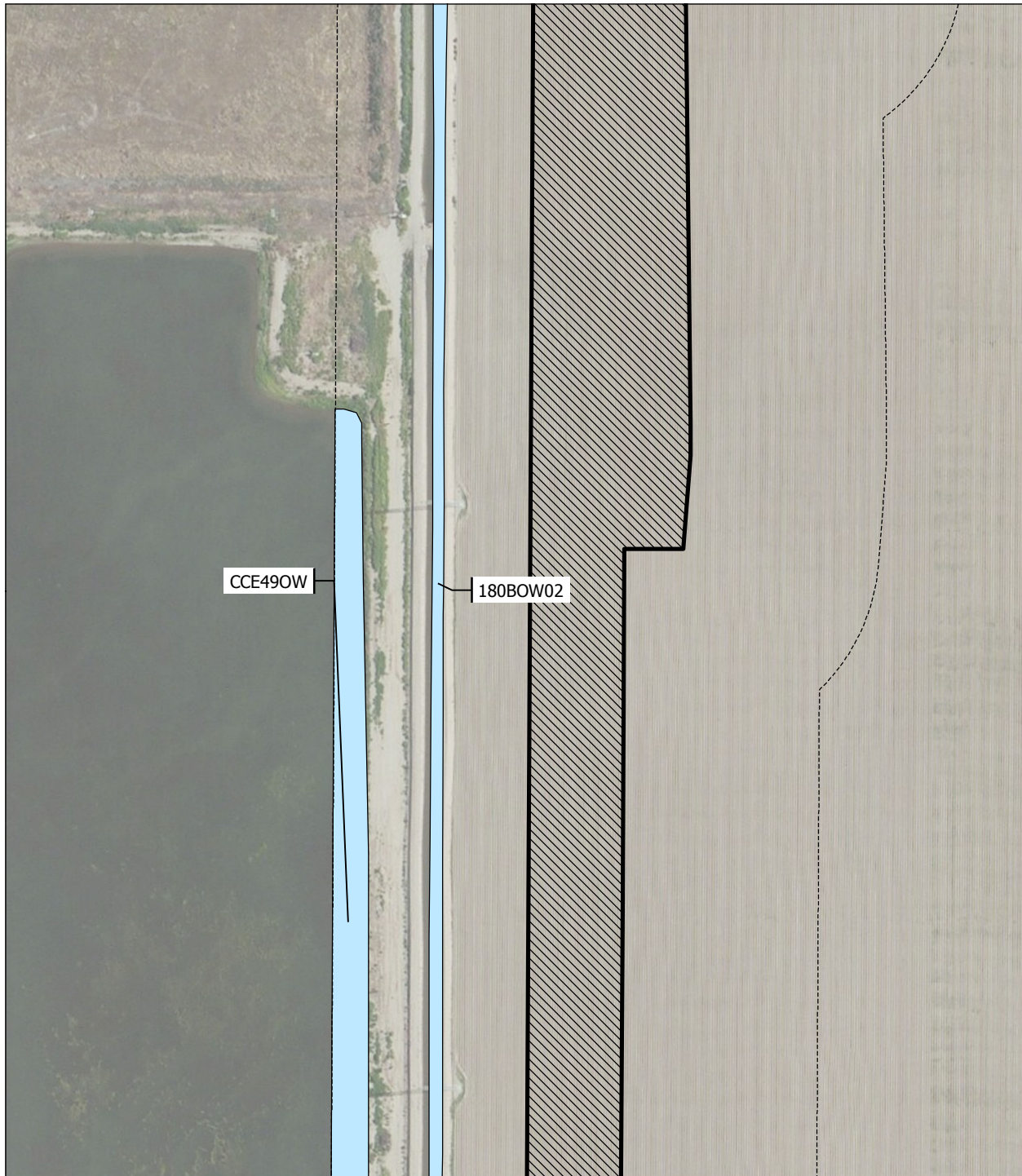
Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales



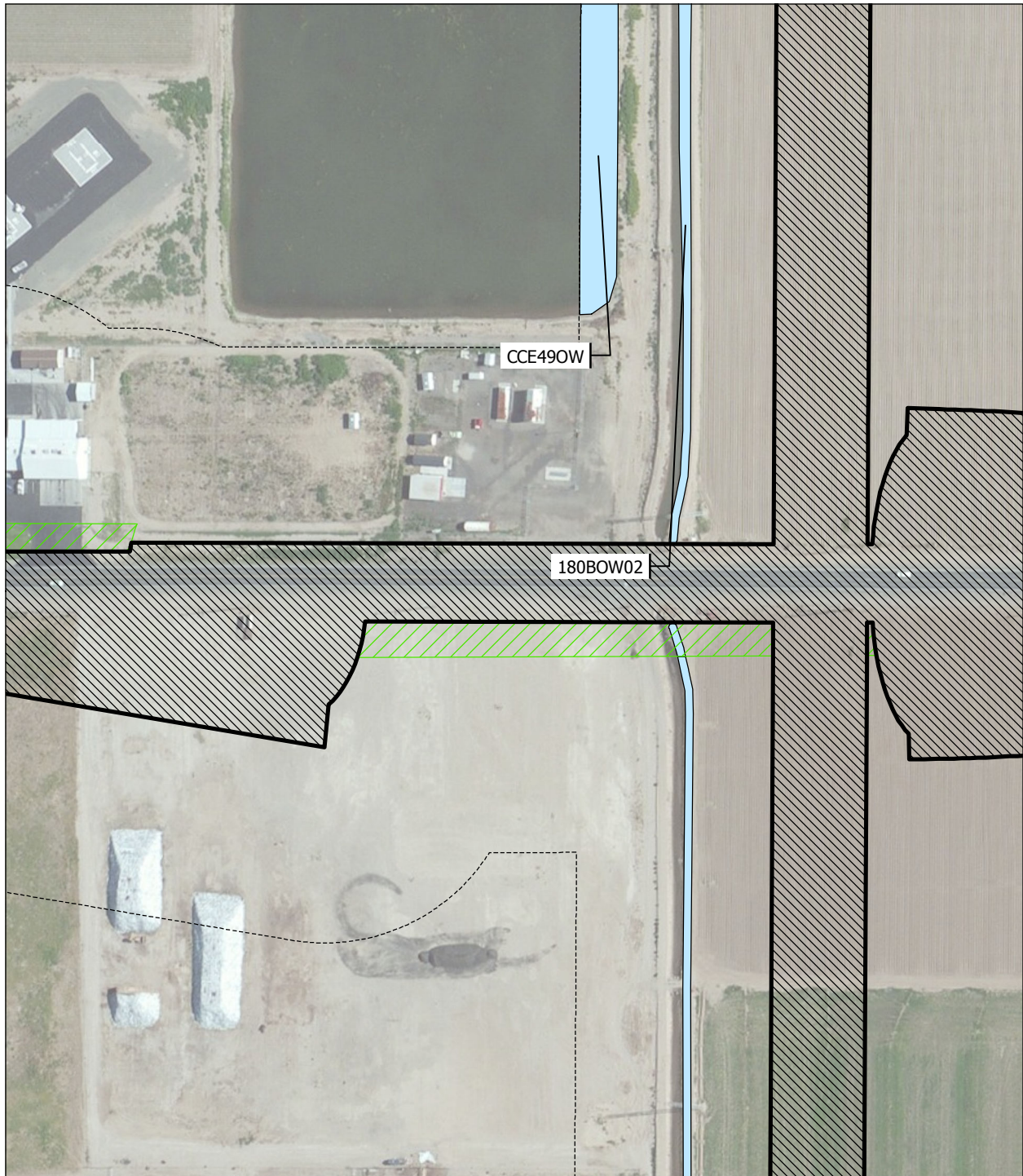
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Image source: ESRI

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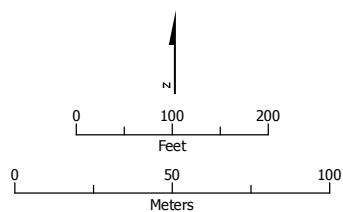
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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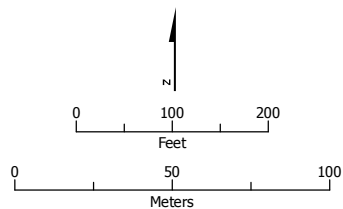
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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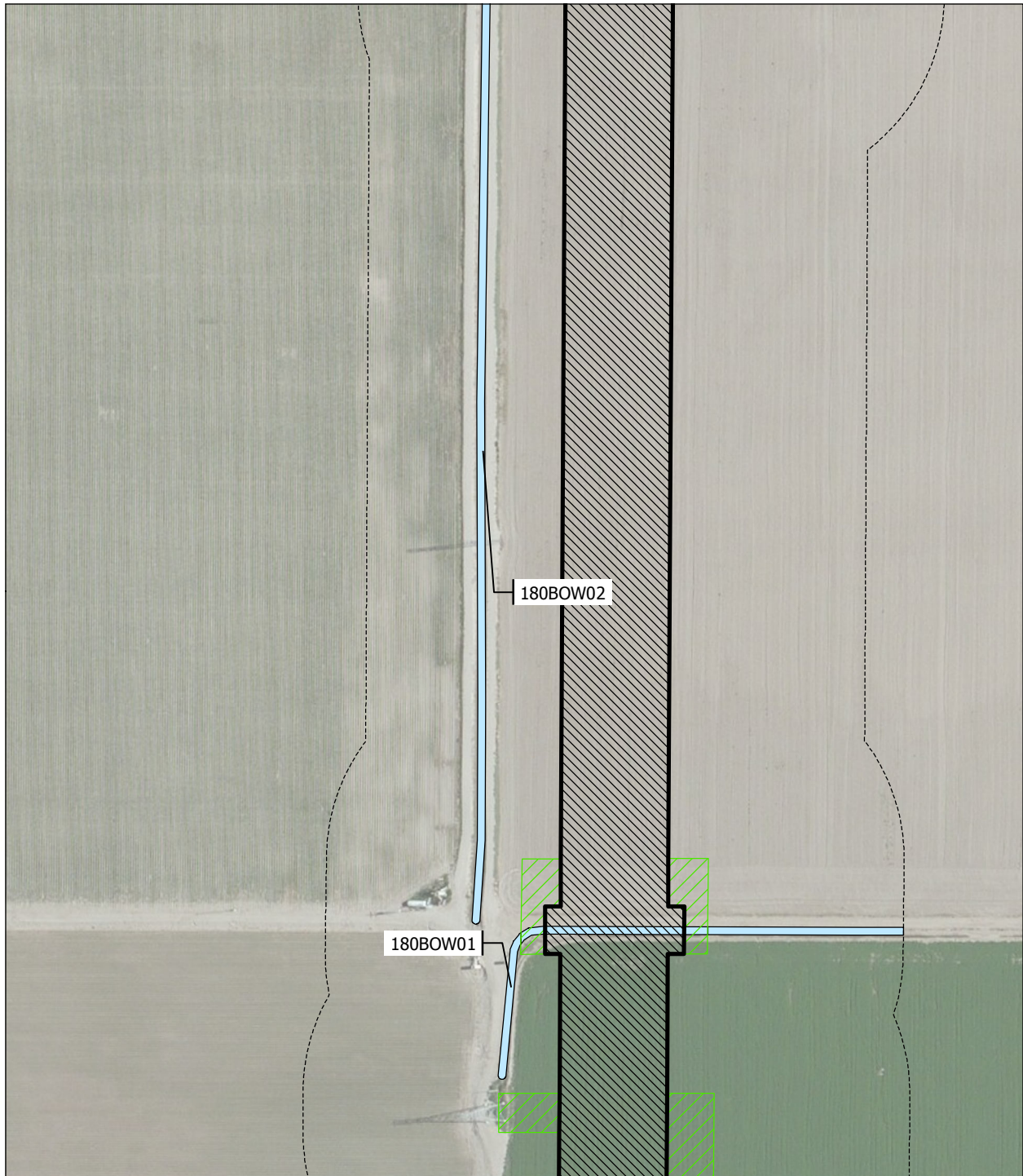


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



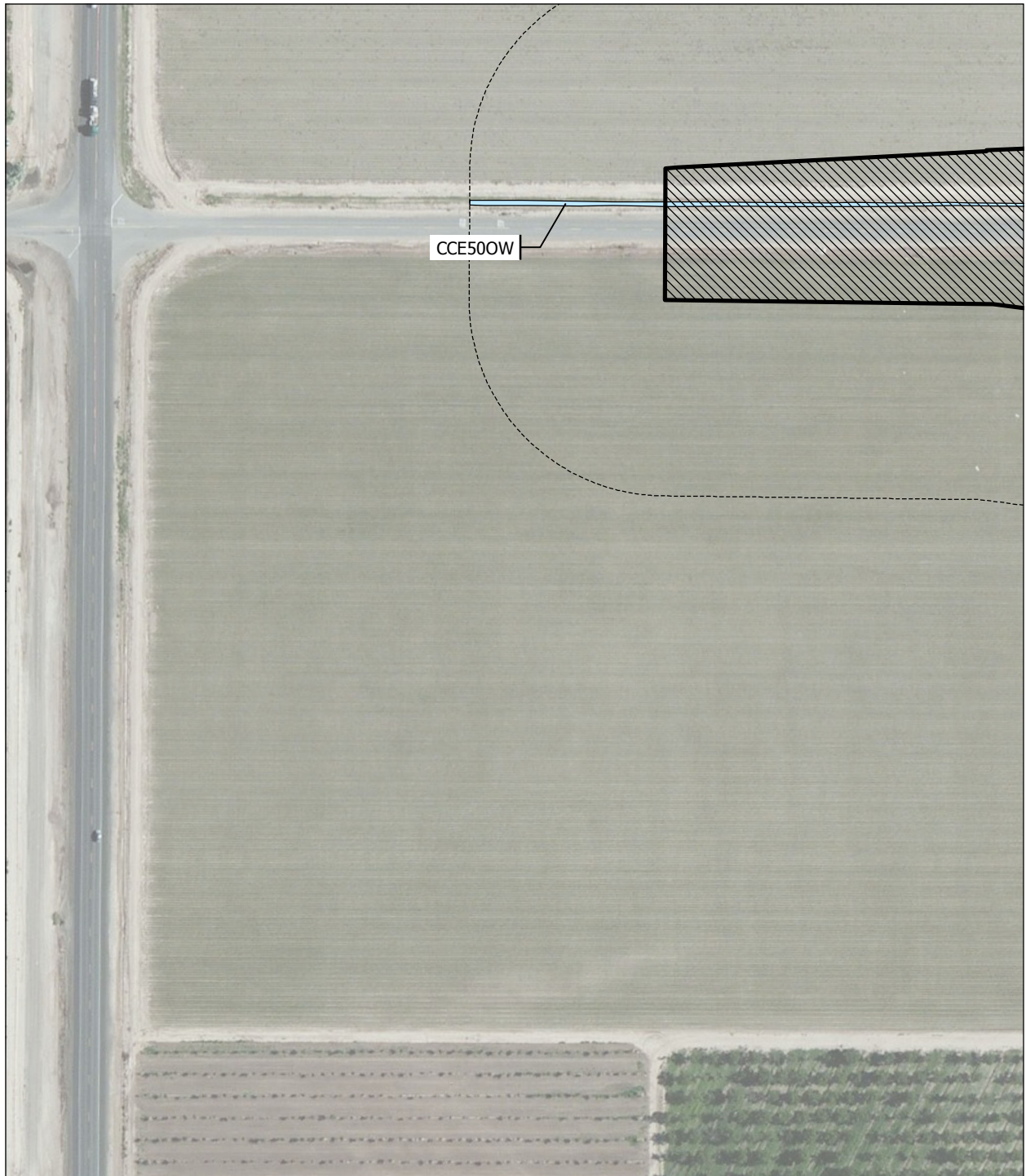
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Image source: ESRI

March 17, 2014



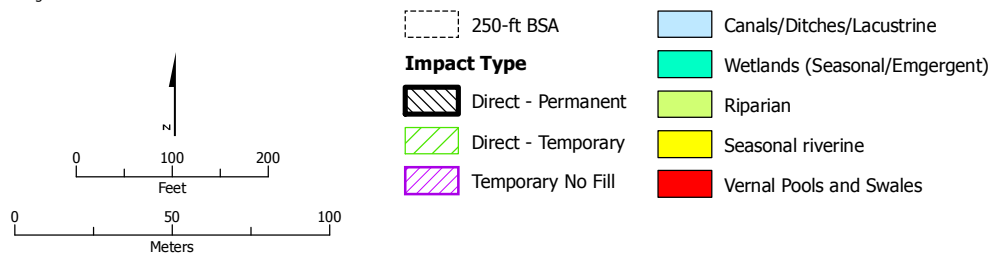
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

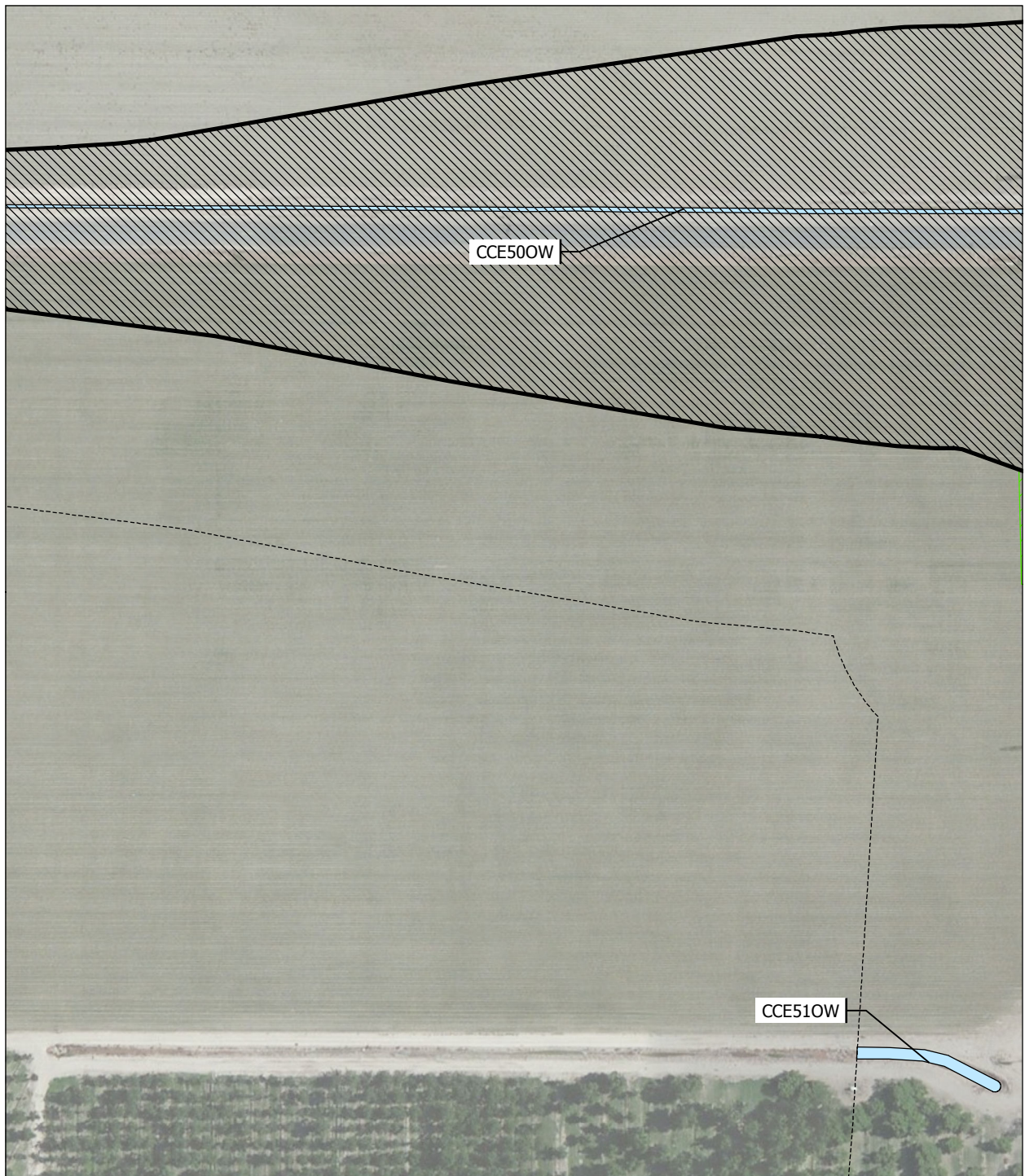
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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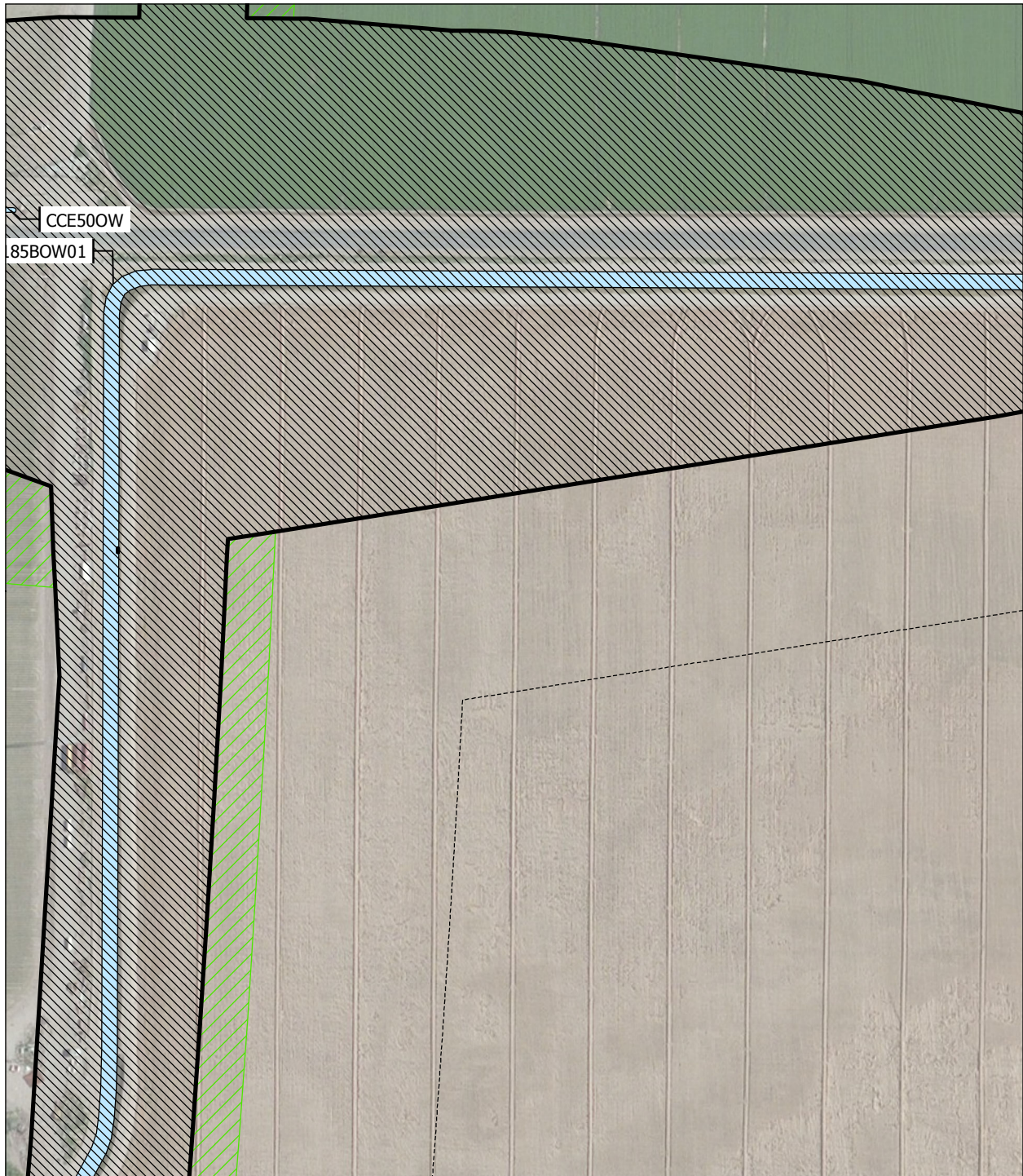


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

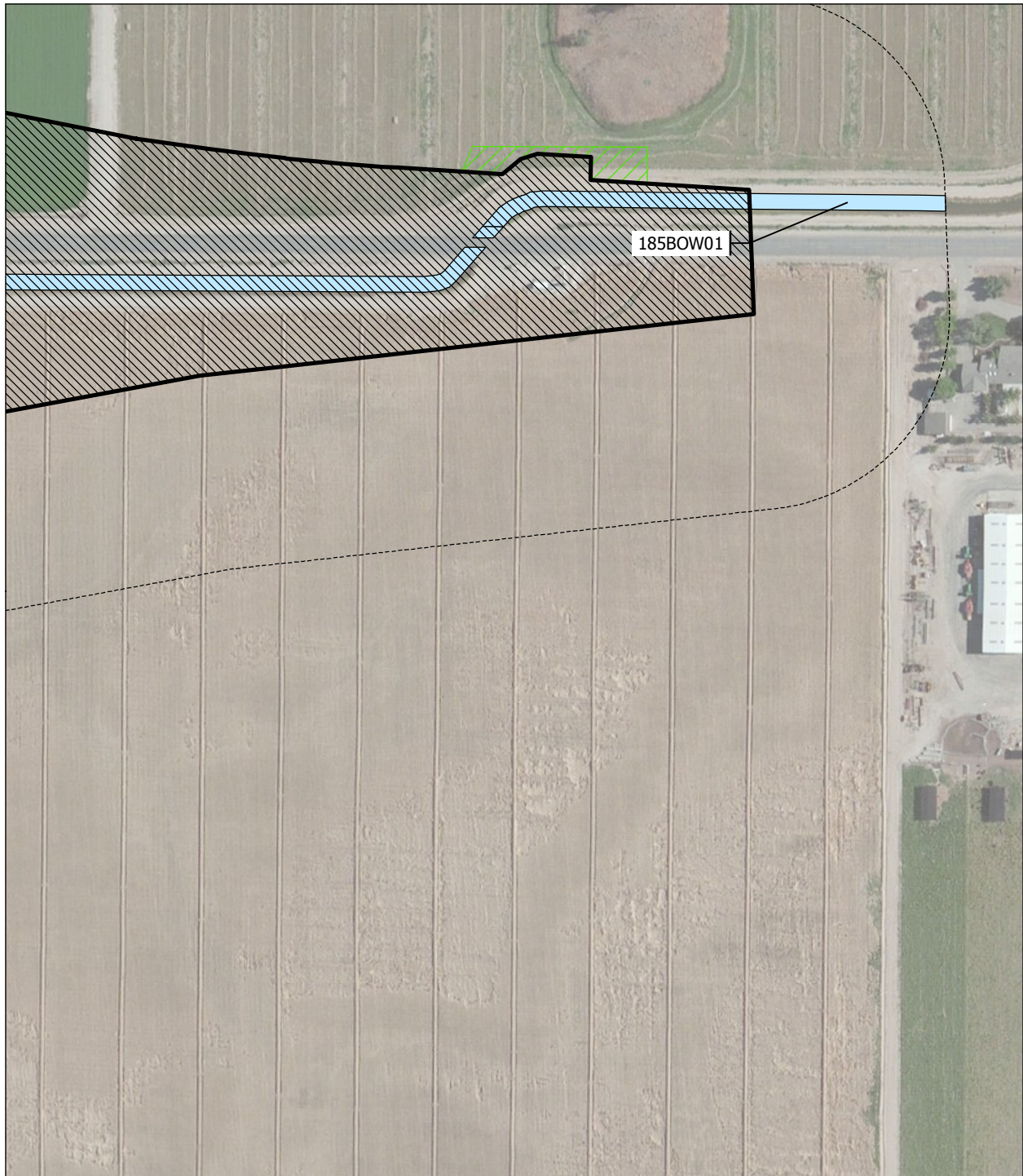
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Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

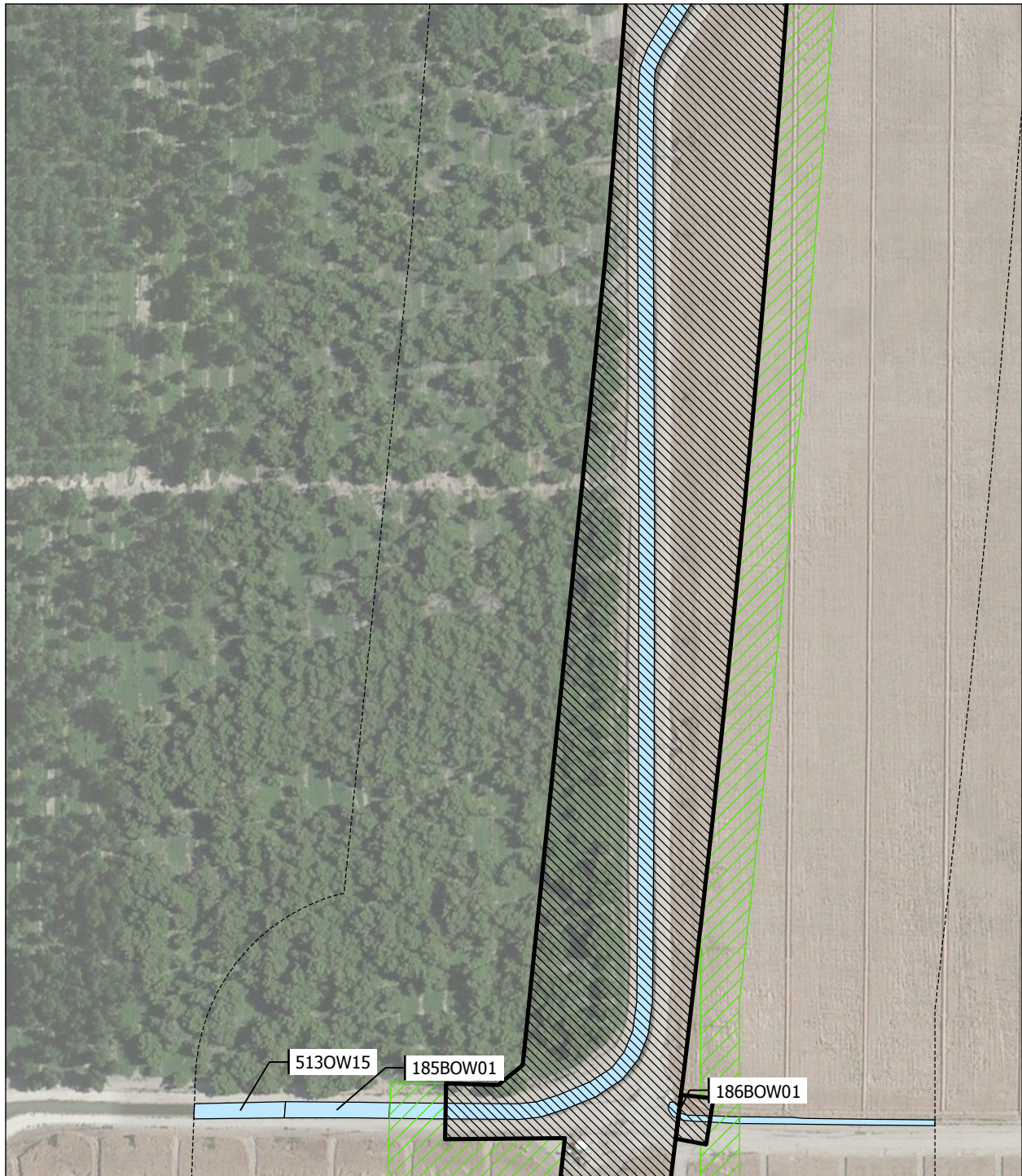


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Image source: ESRI

March 17, 2014

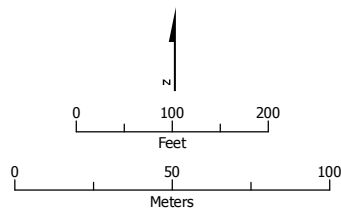


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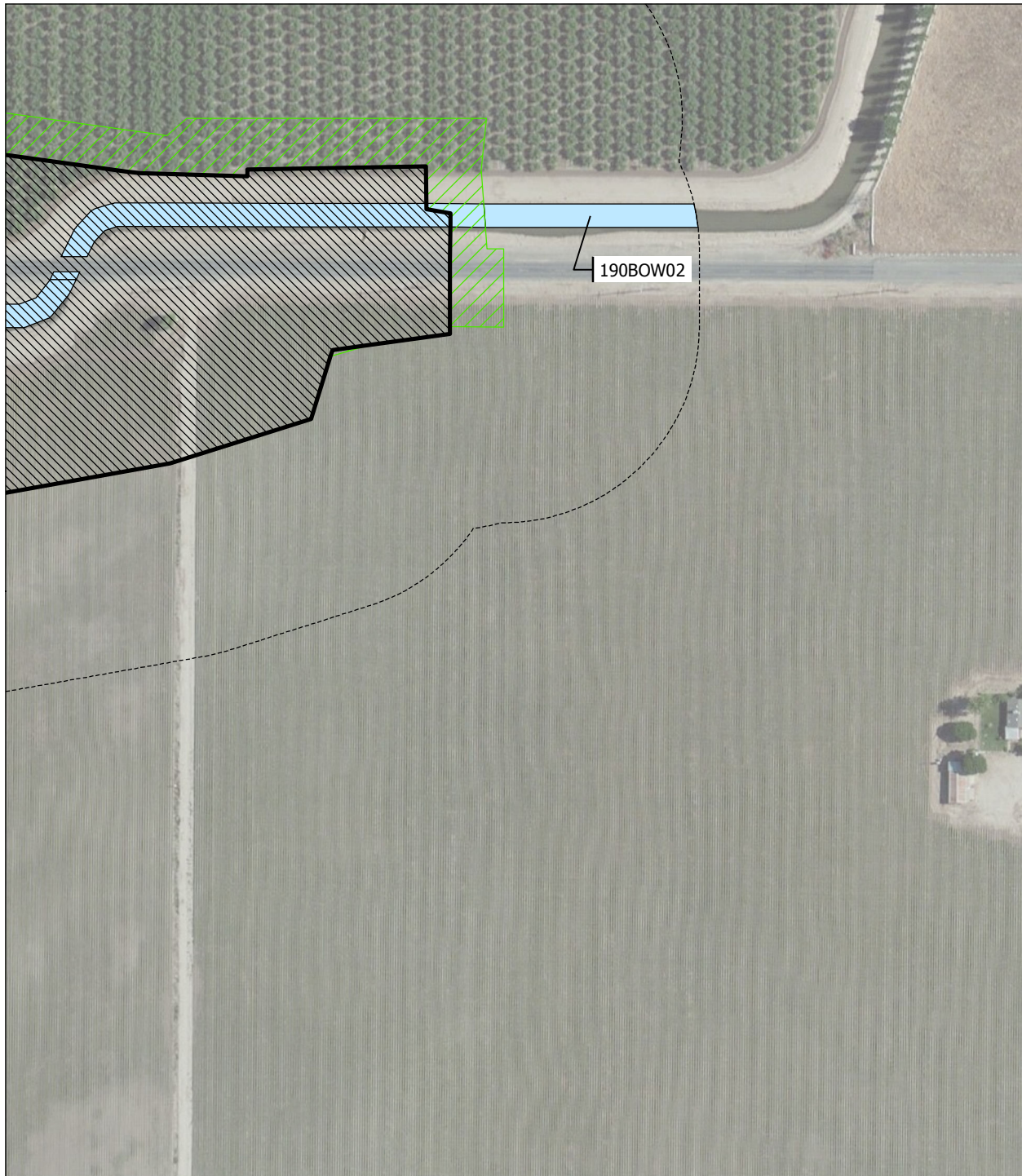


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

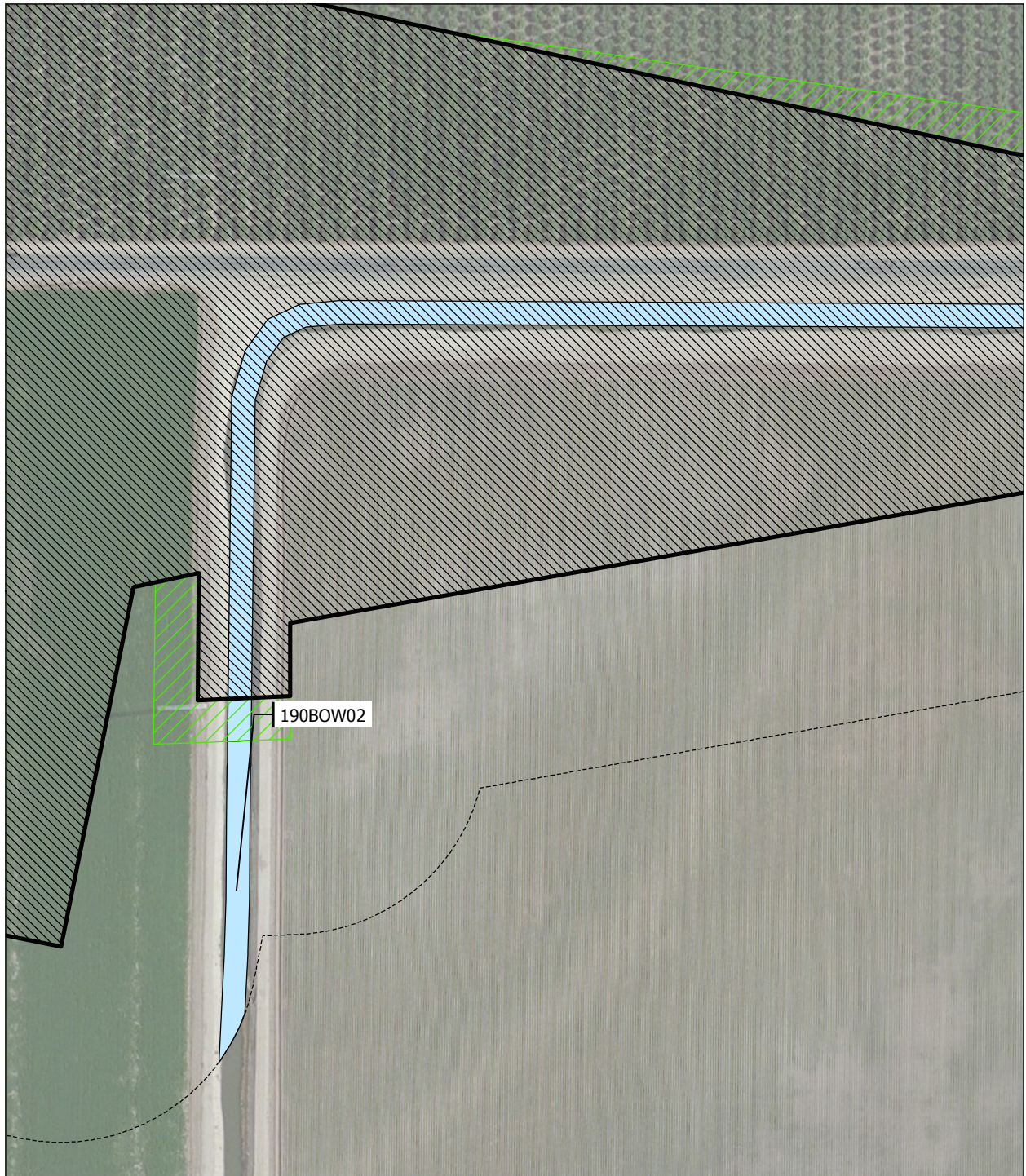


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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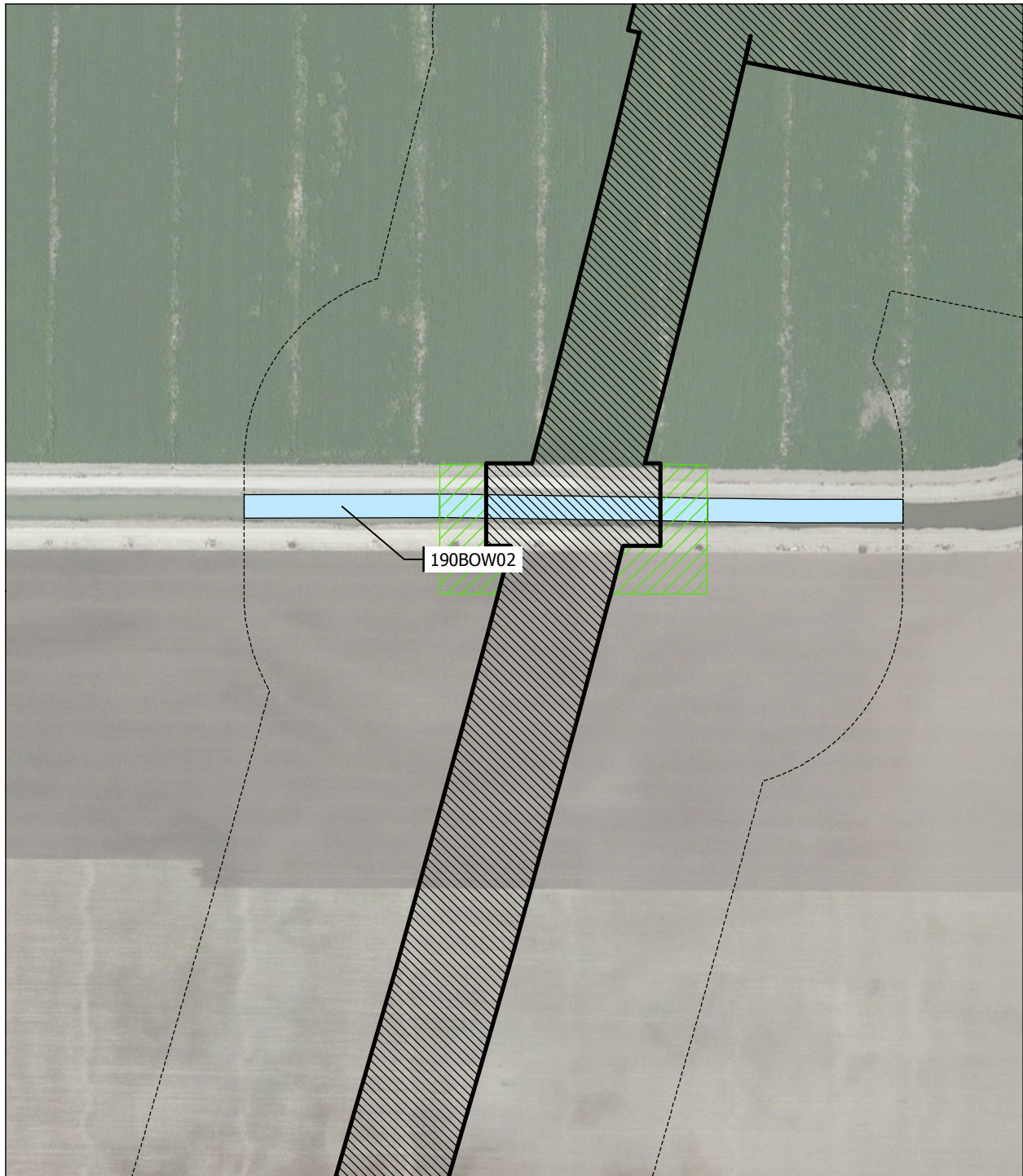


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



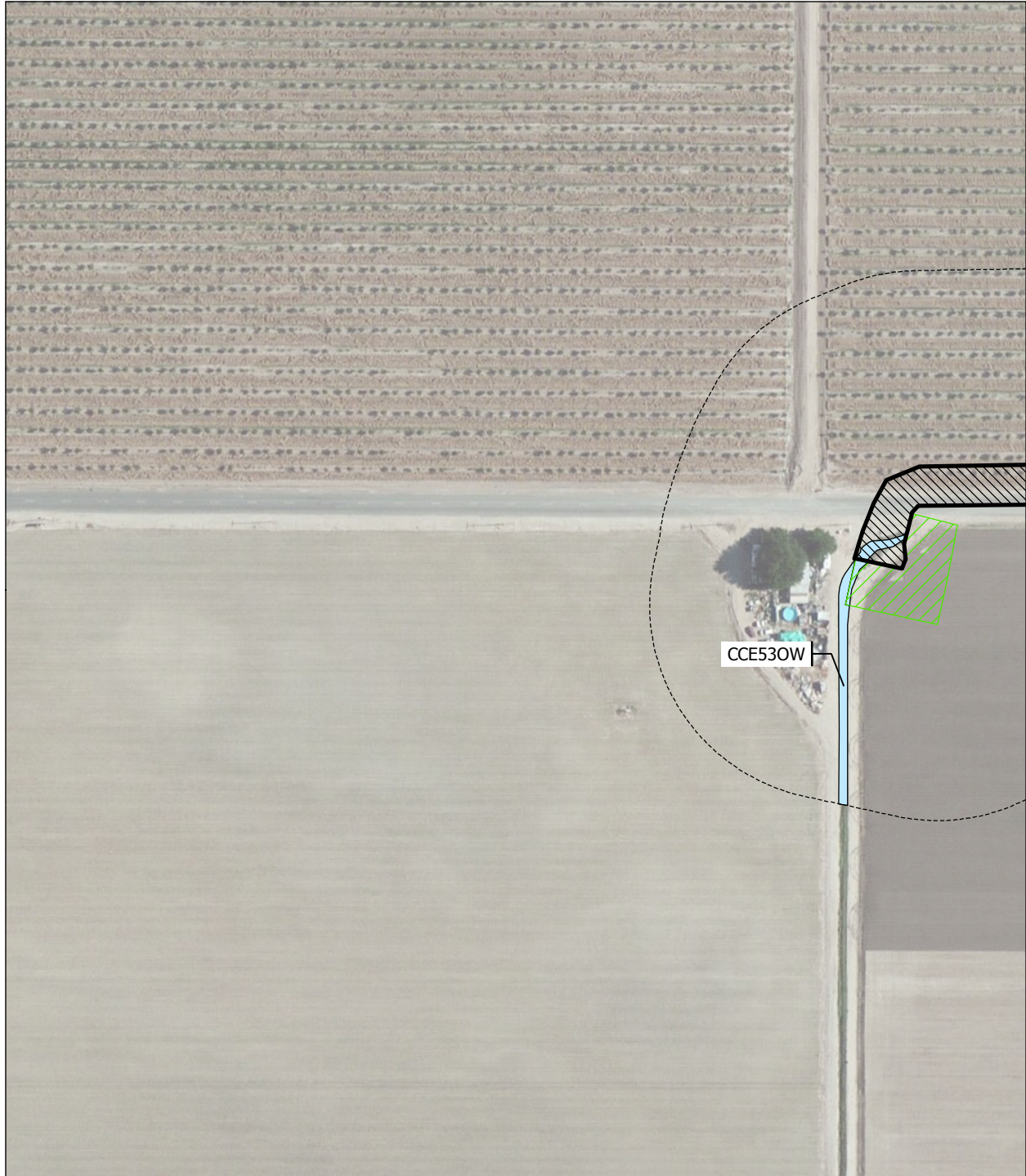
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March 17, 2014



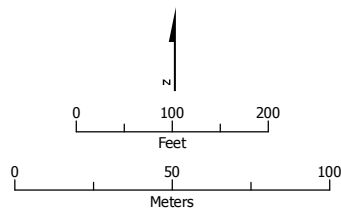
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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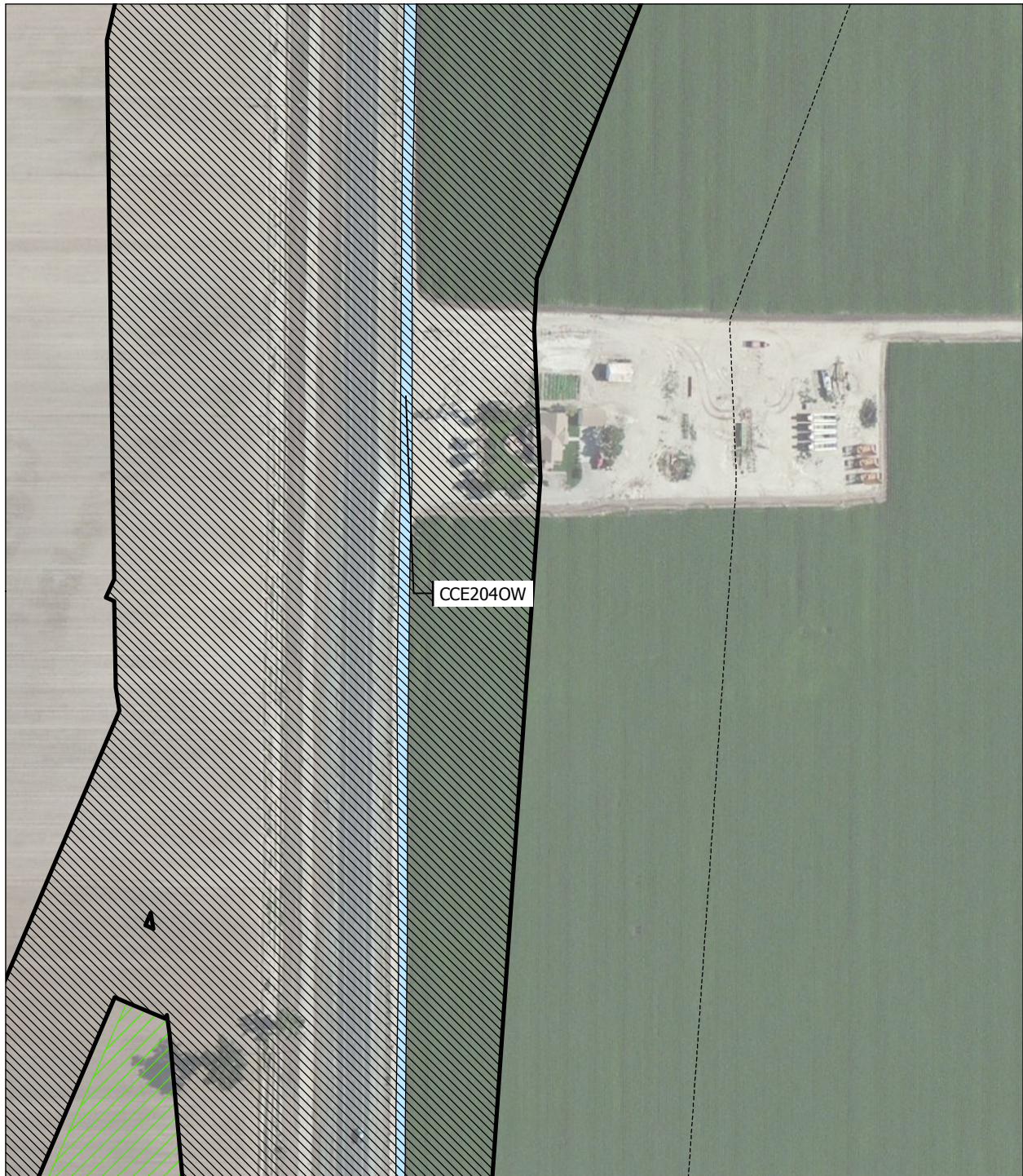
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

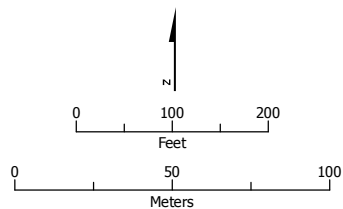


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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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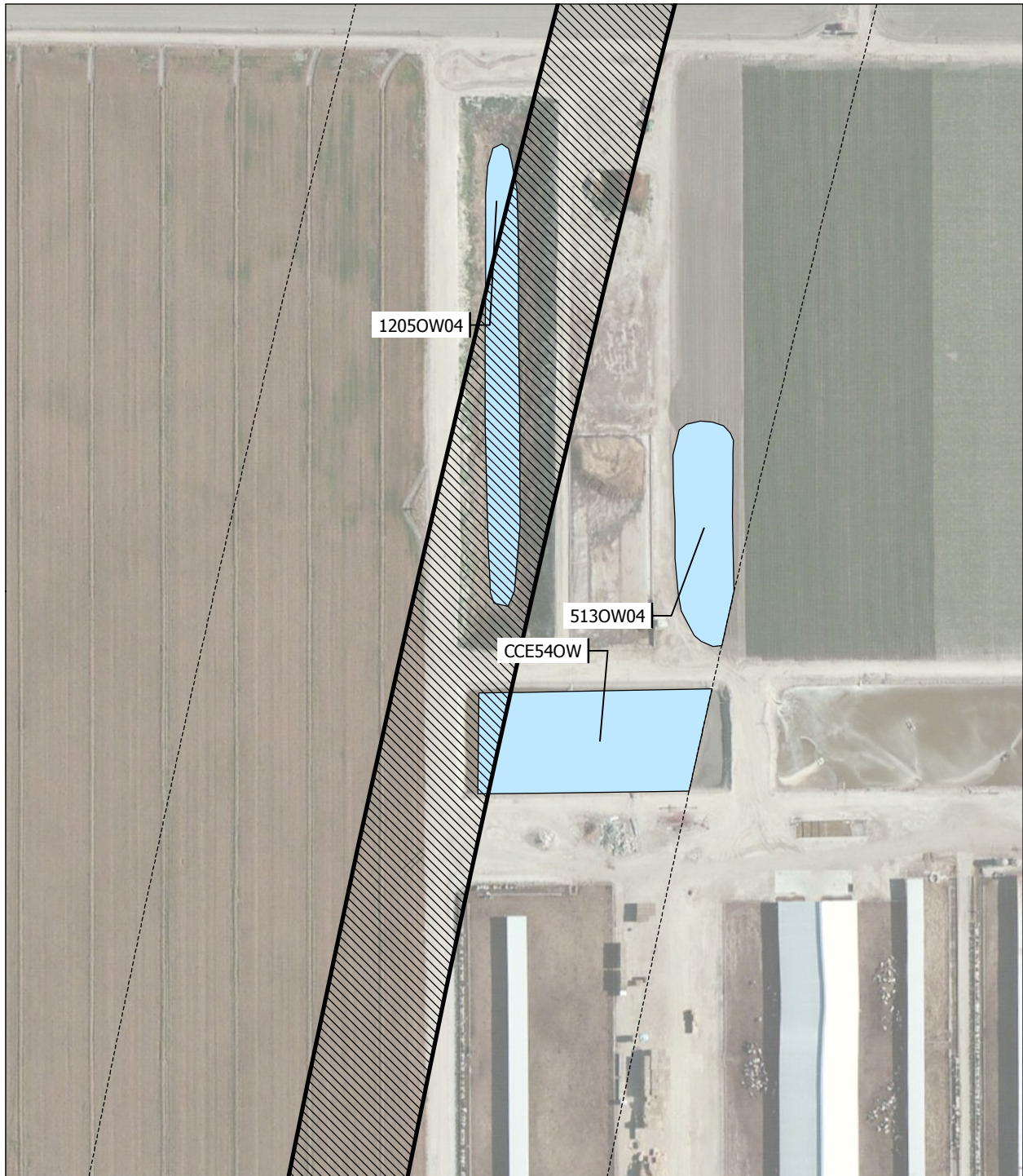


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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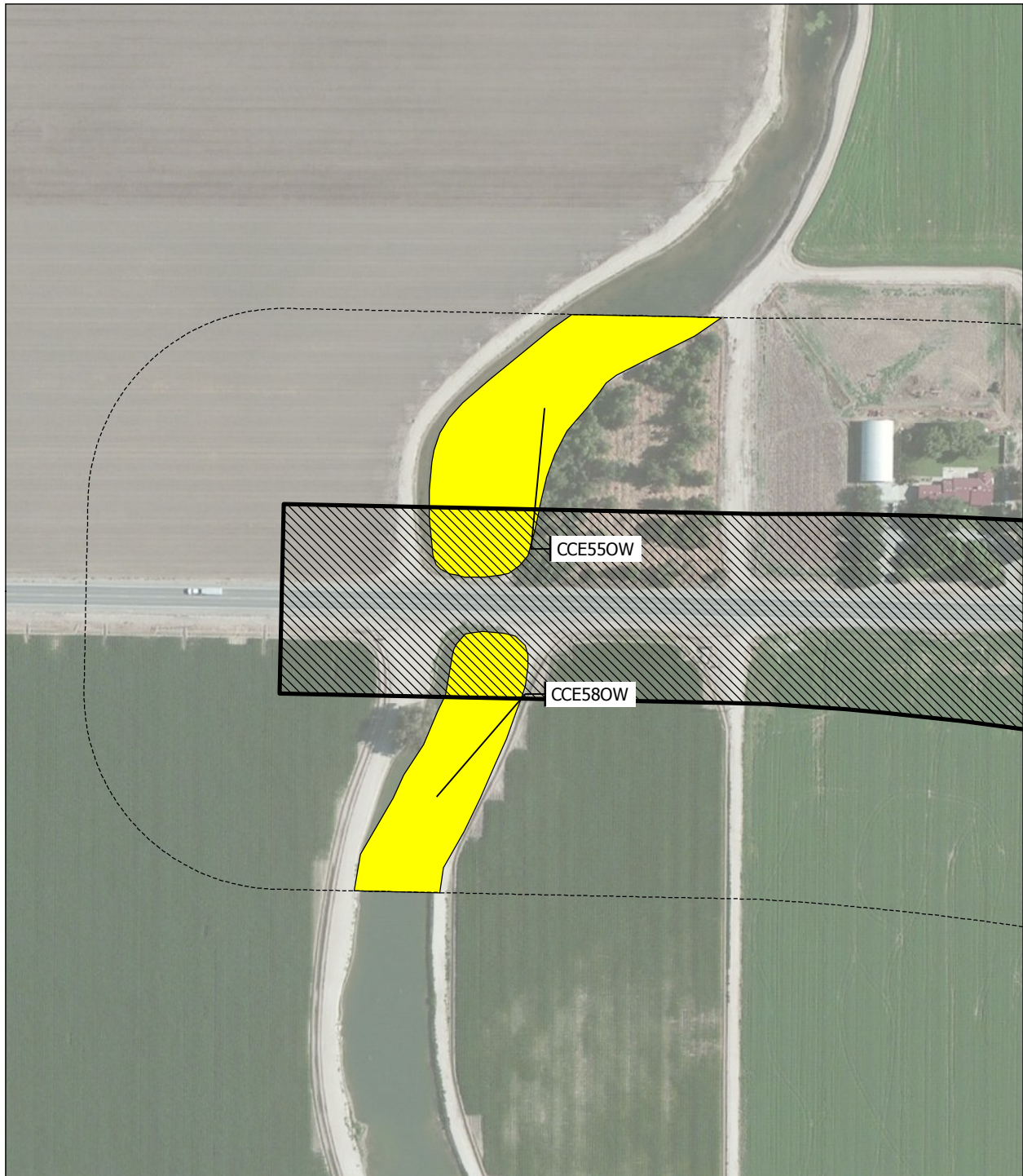


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



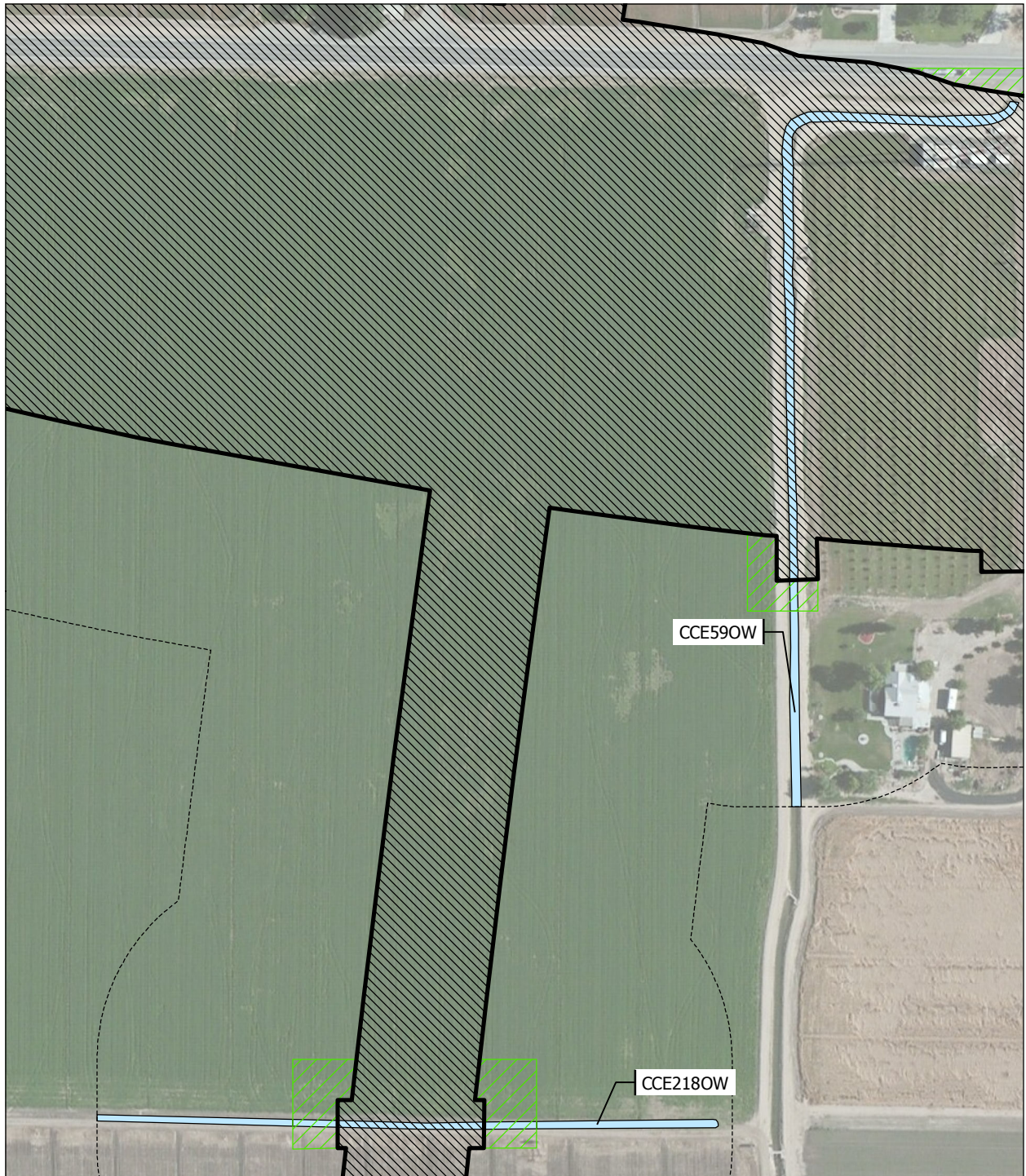
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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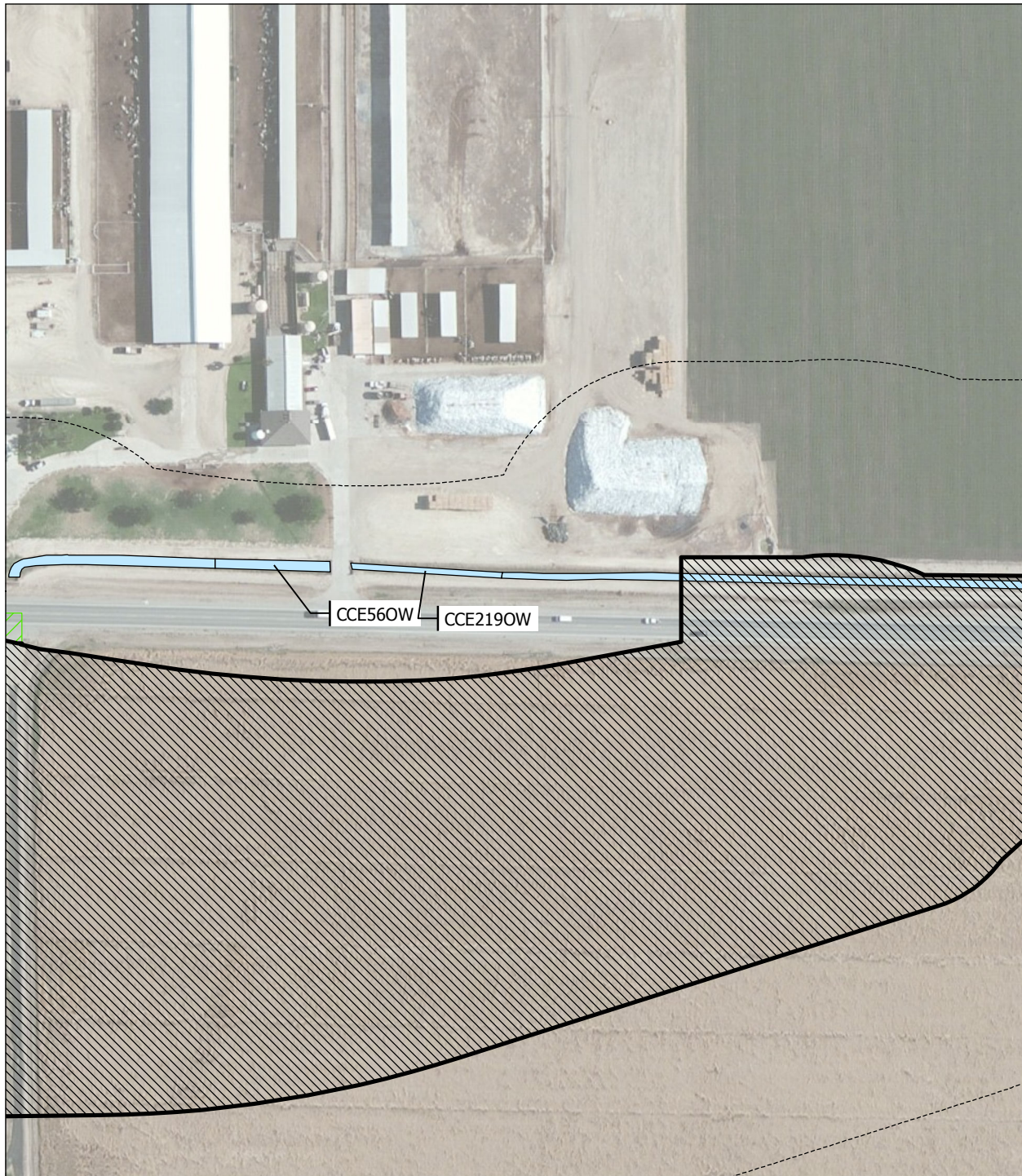


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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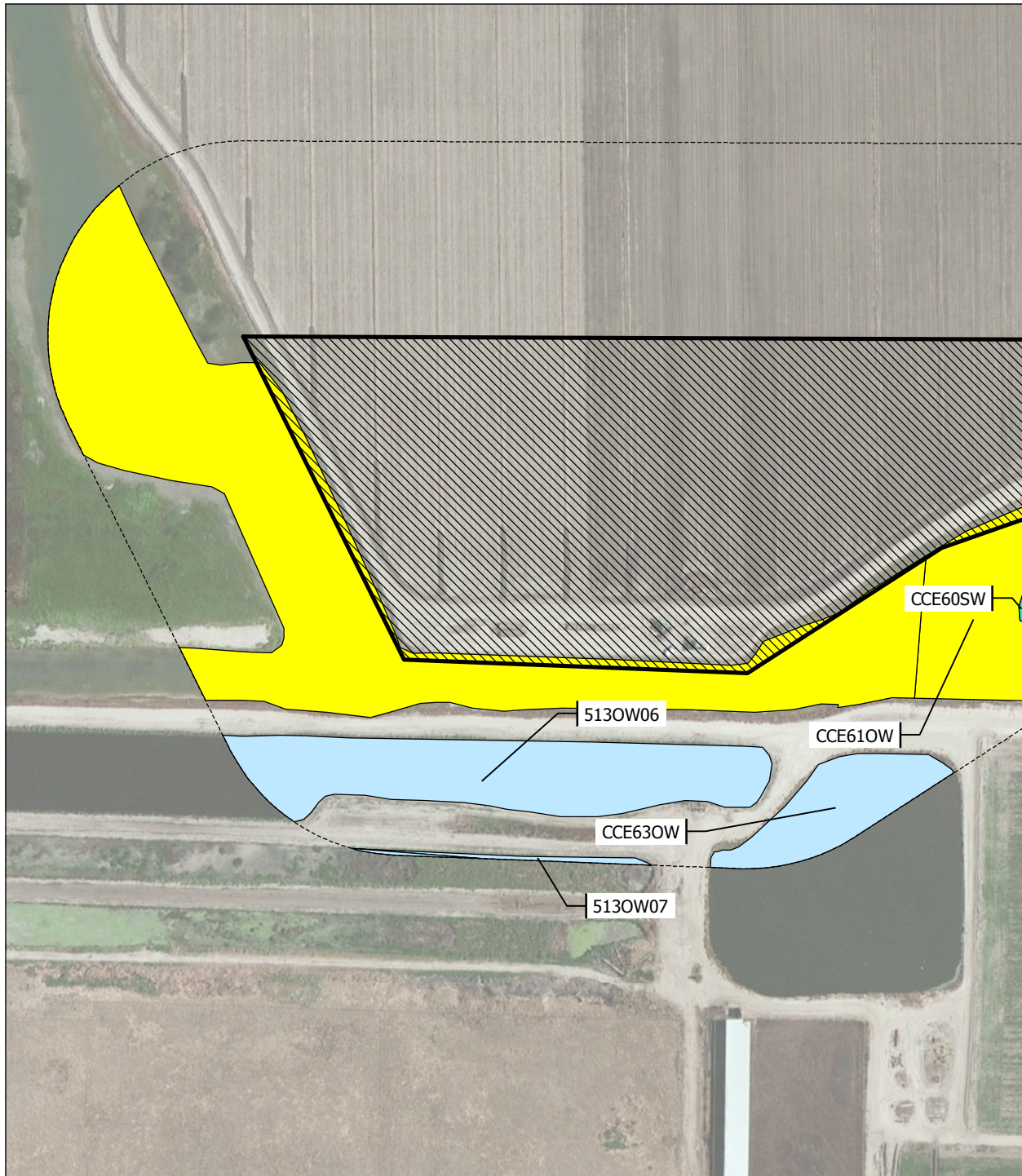
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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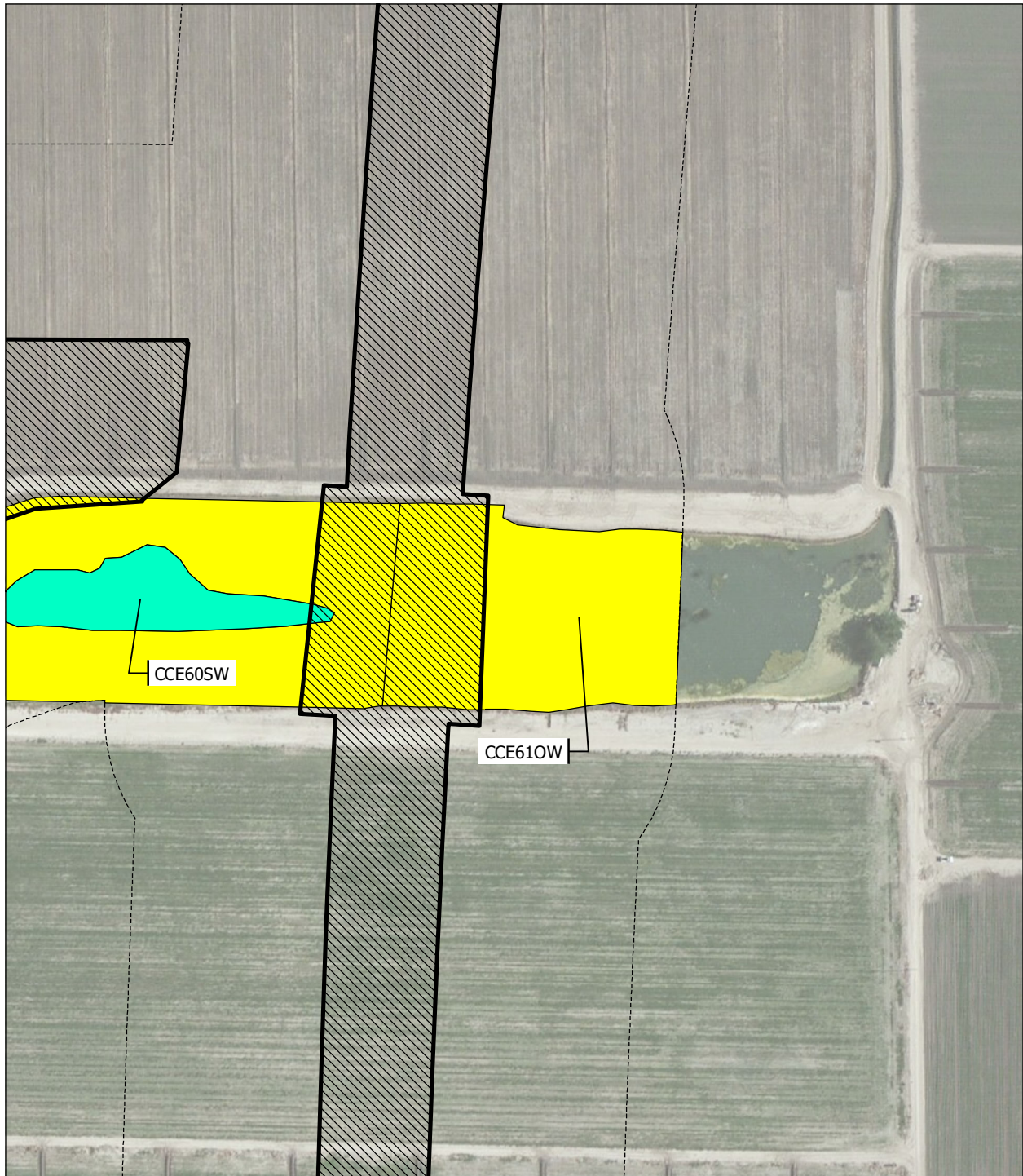
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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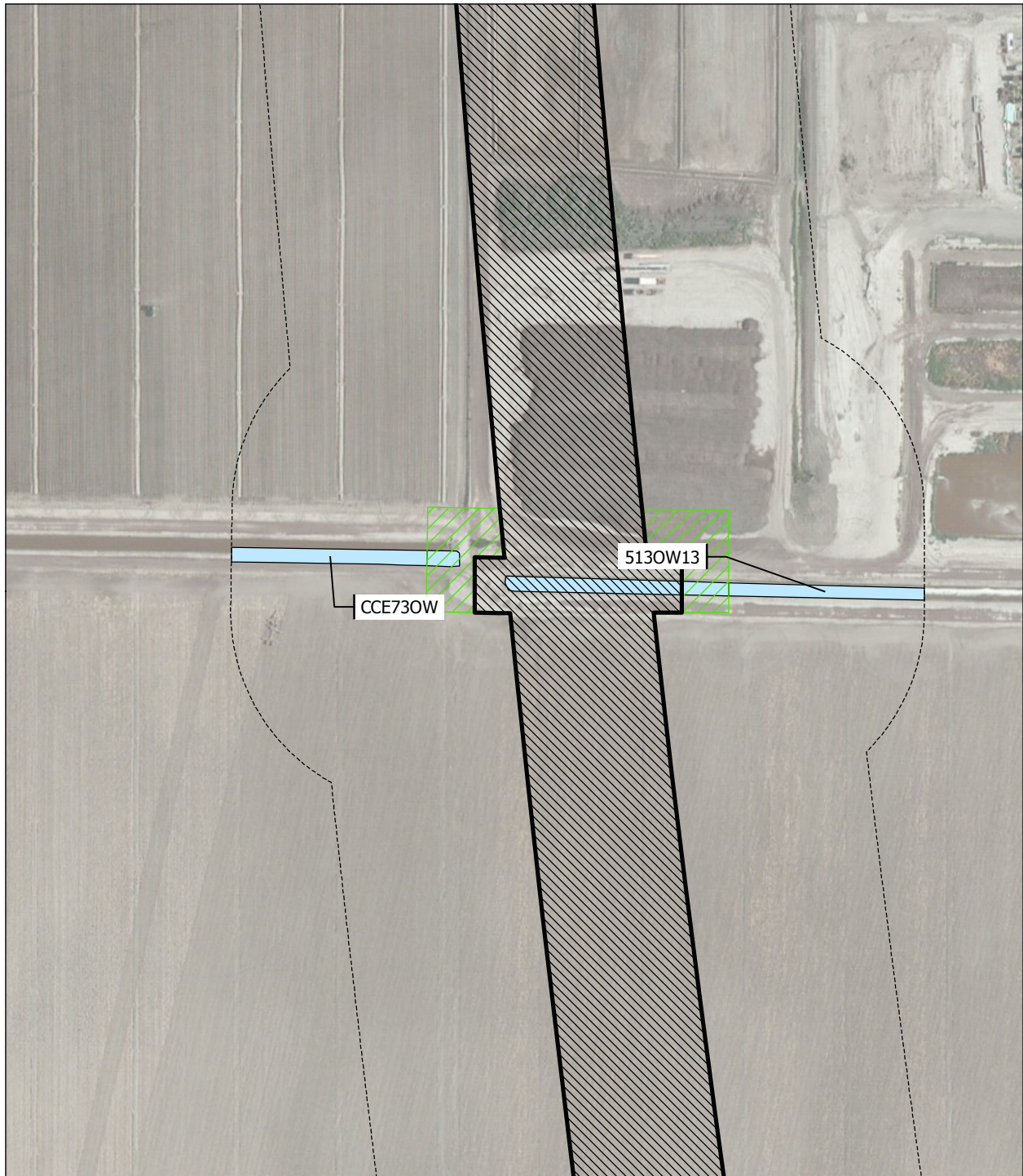


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



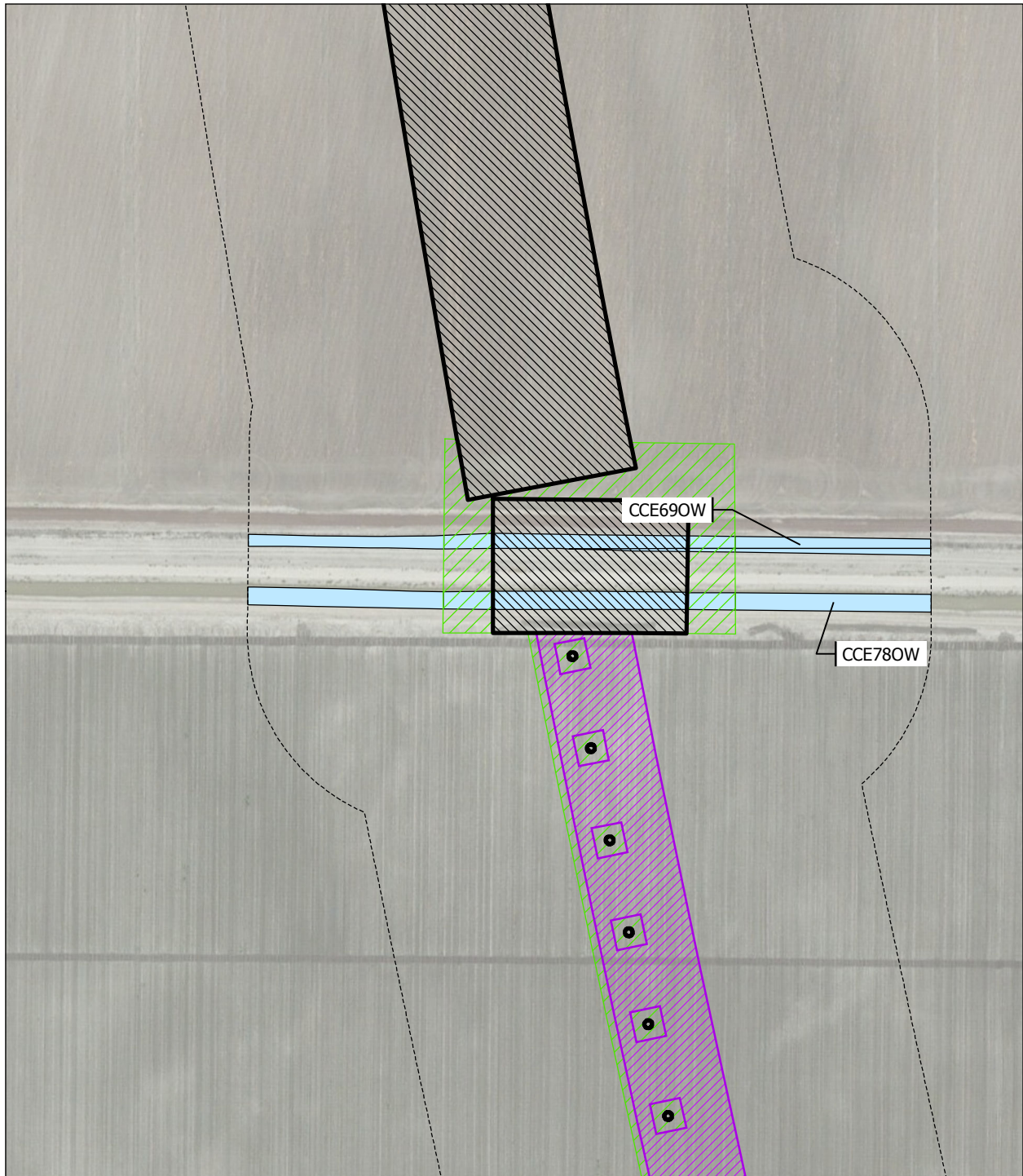
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Image source: ESRI

March 17, 2014



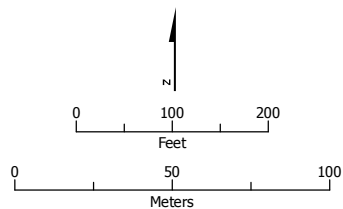
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

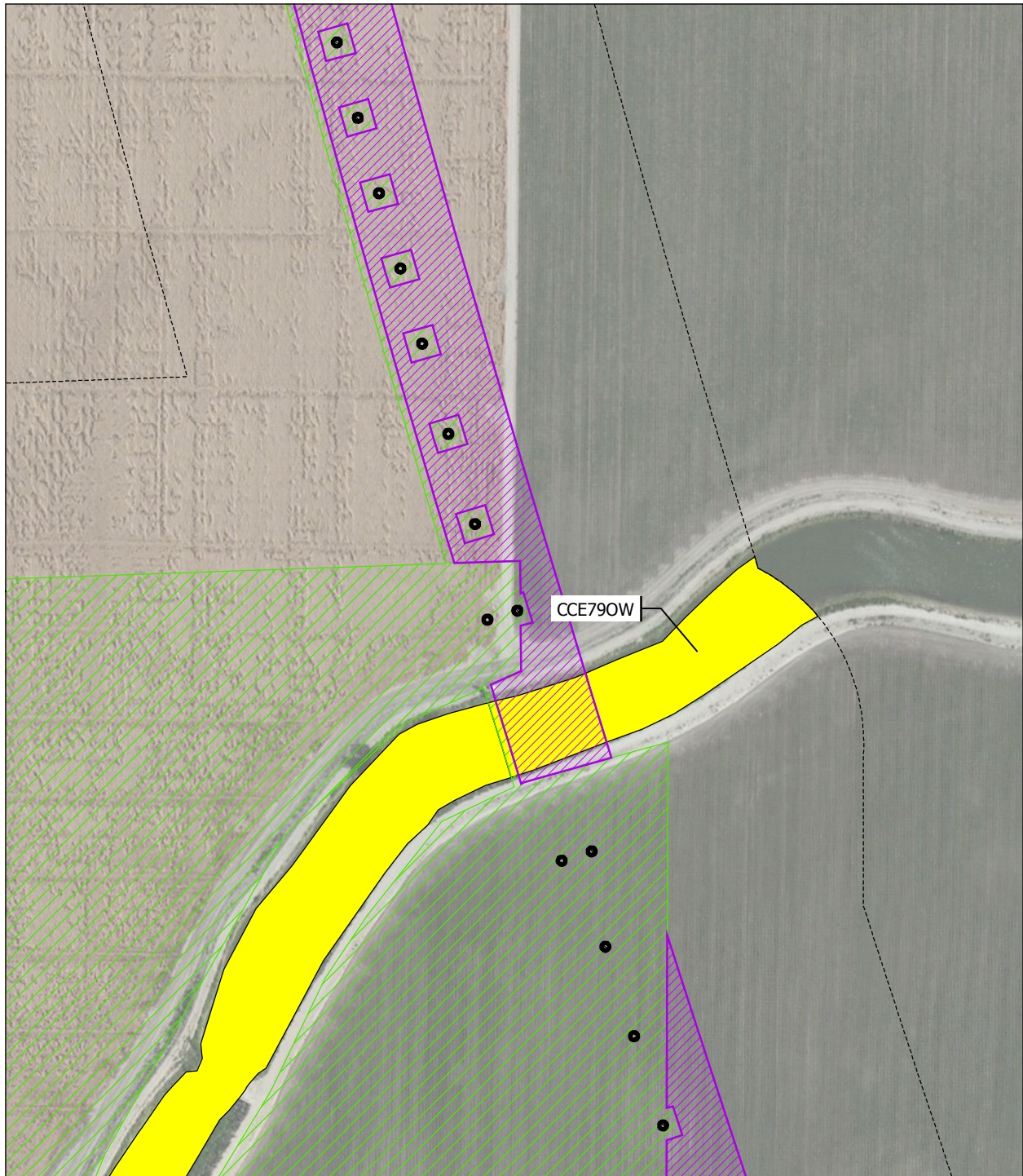
Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

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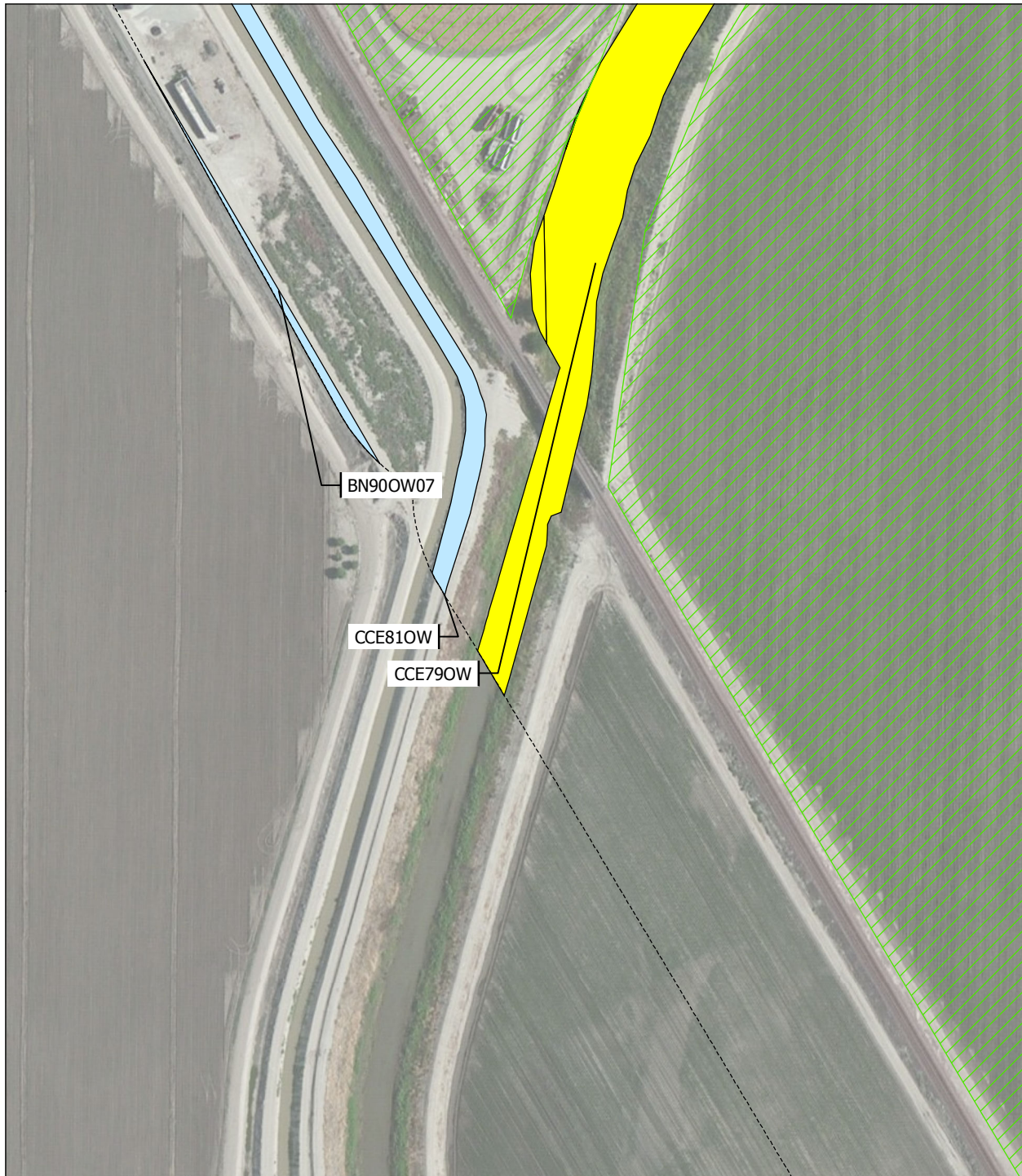


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

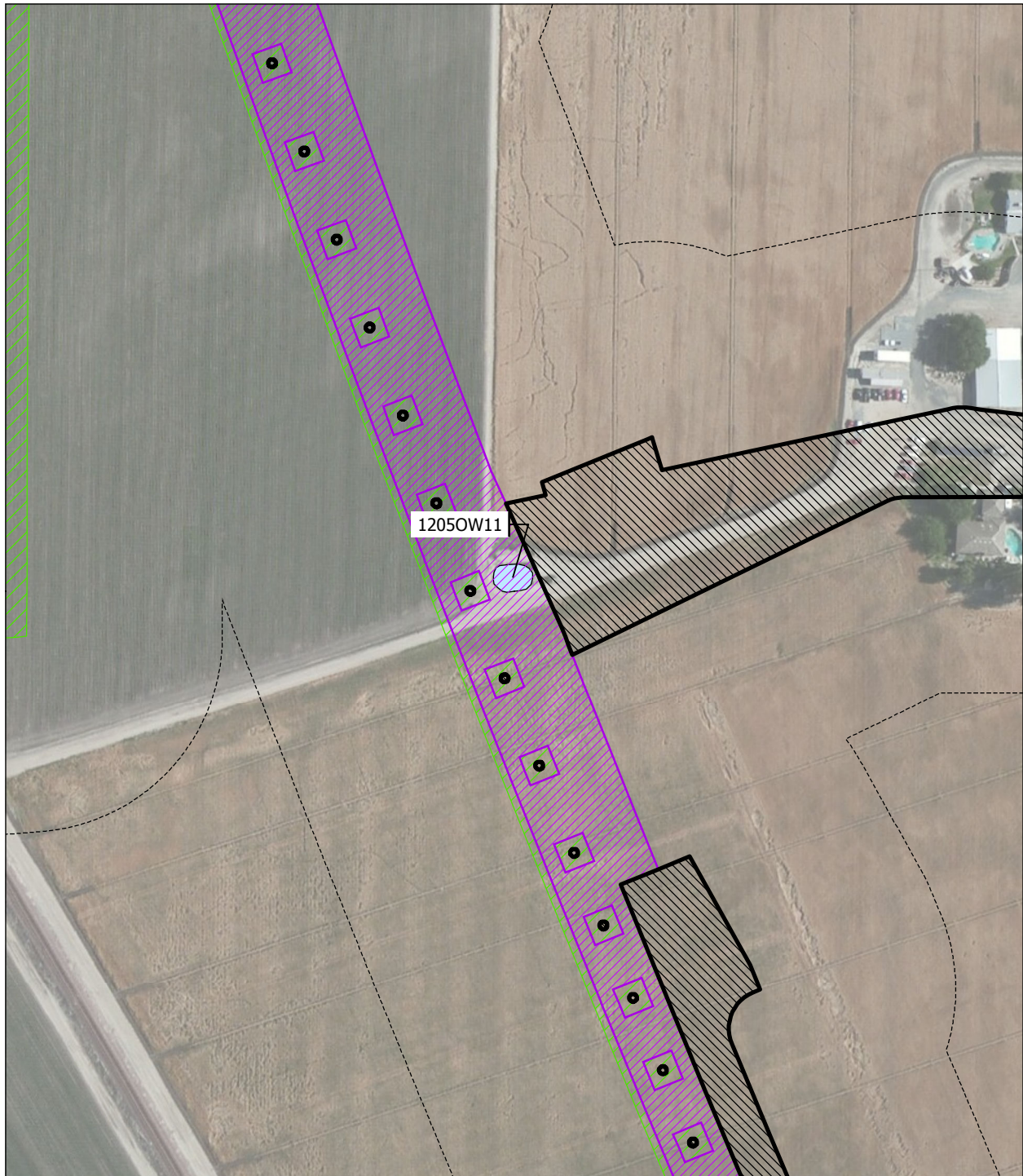
Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales

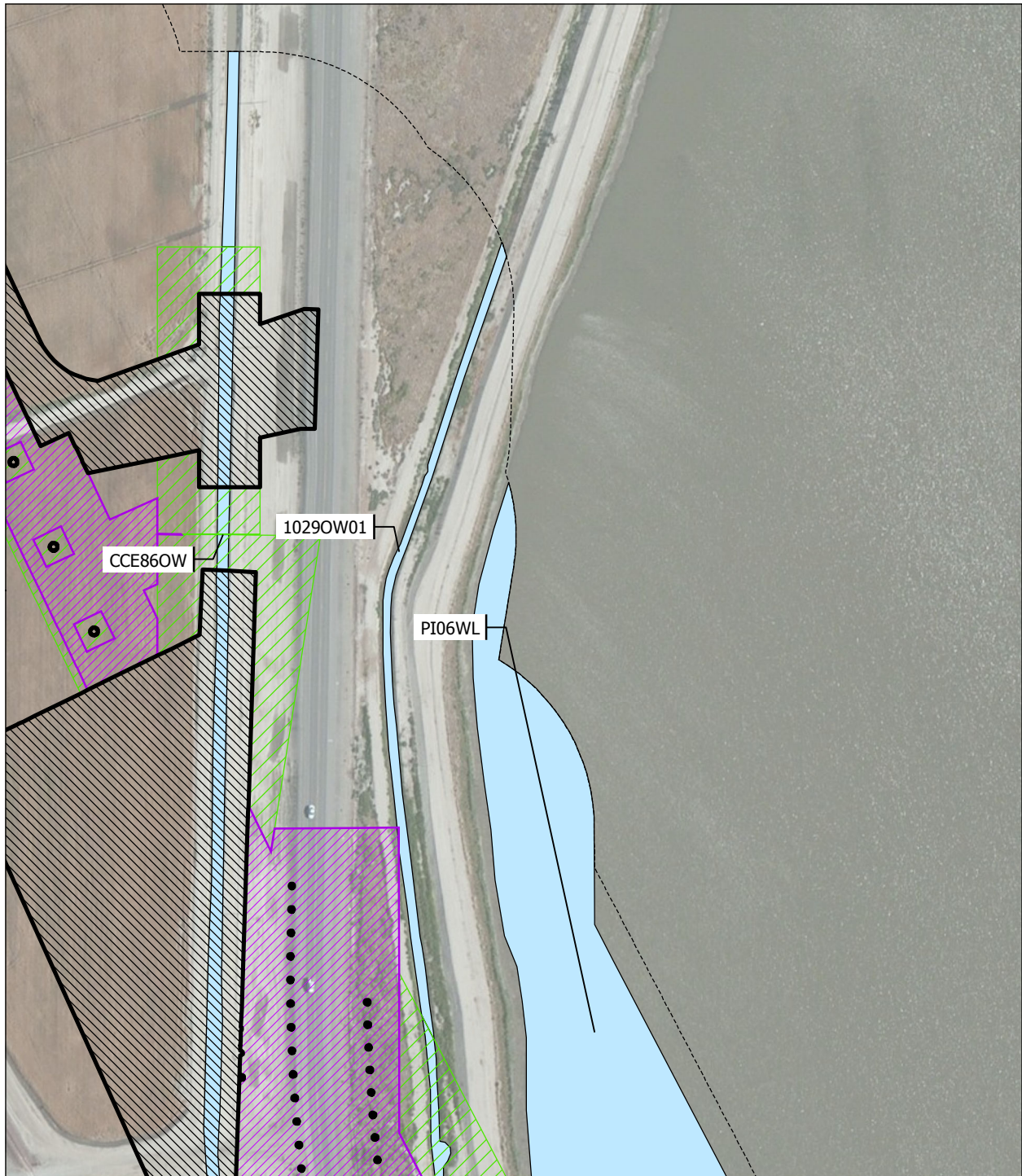


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Image source: ESRI

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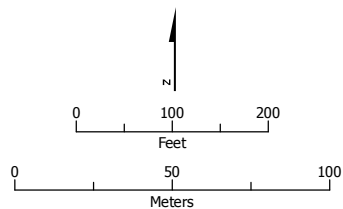


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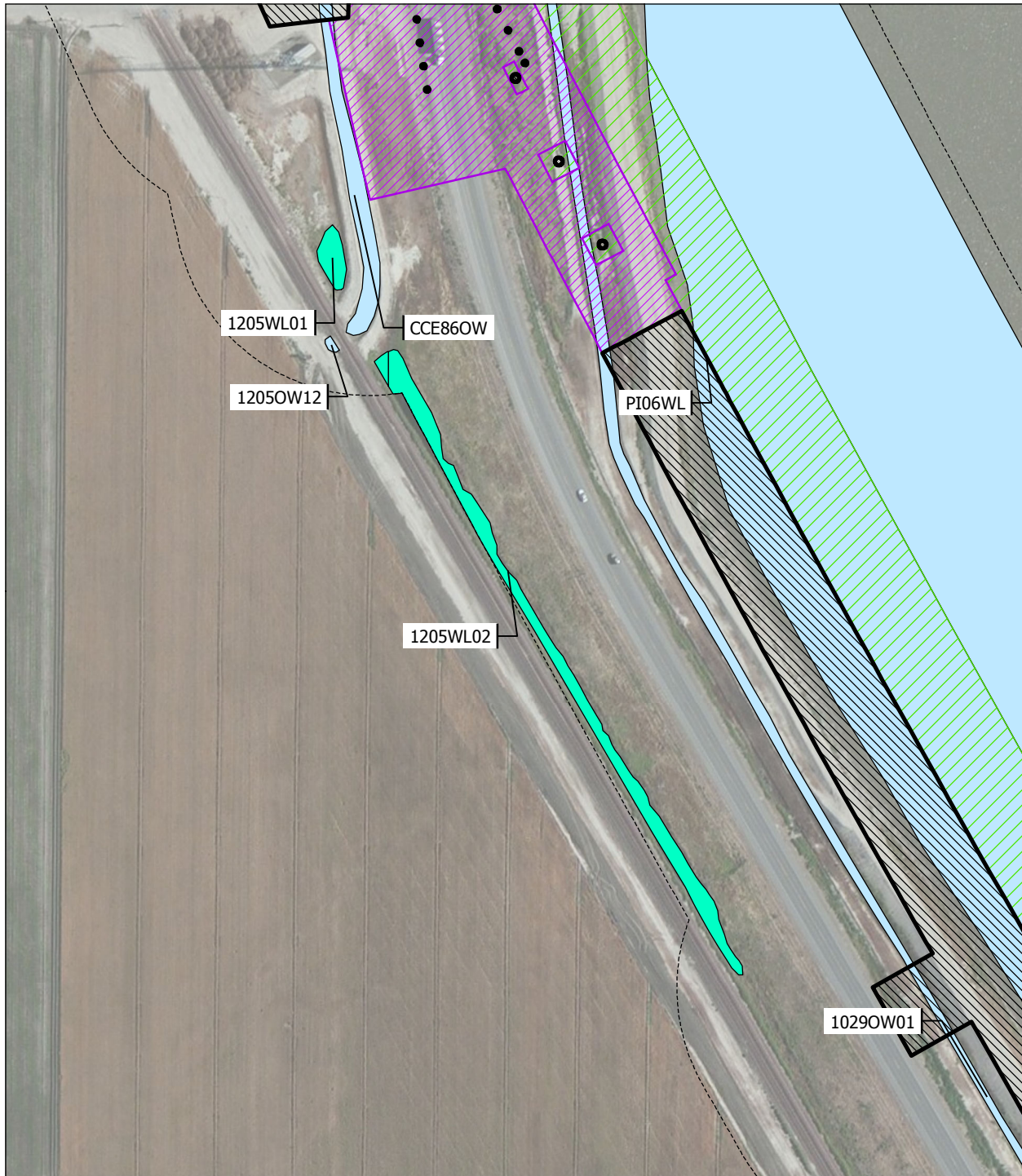


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



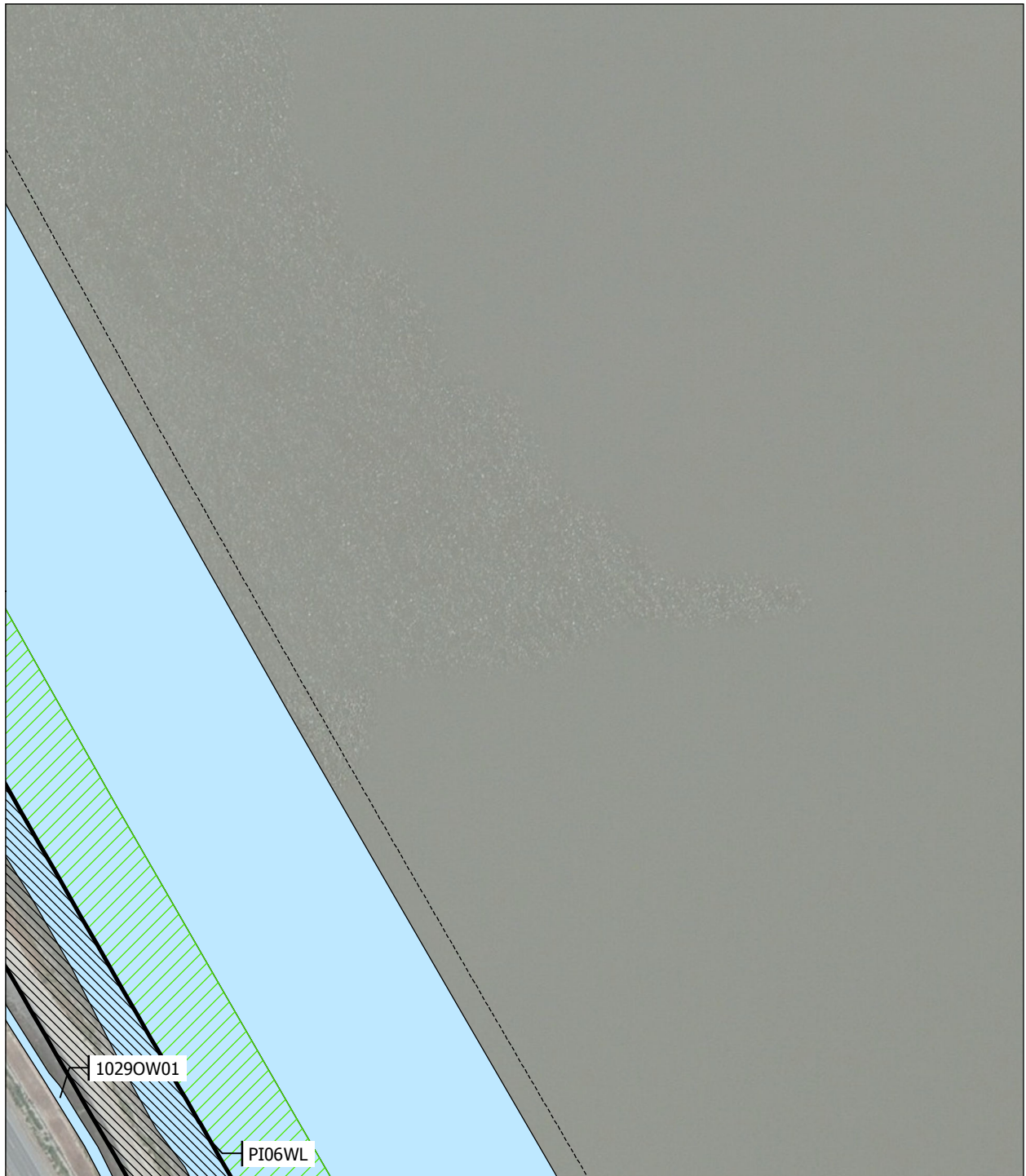
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Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



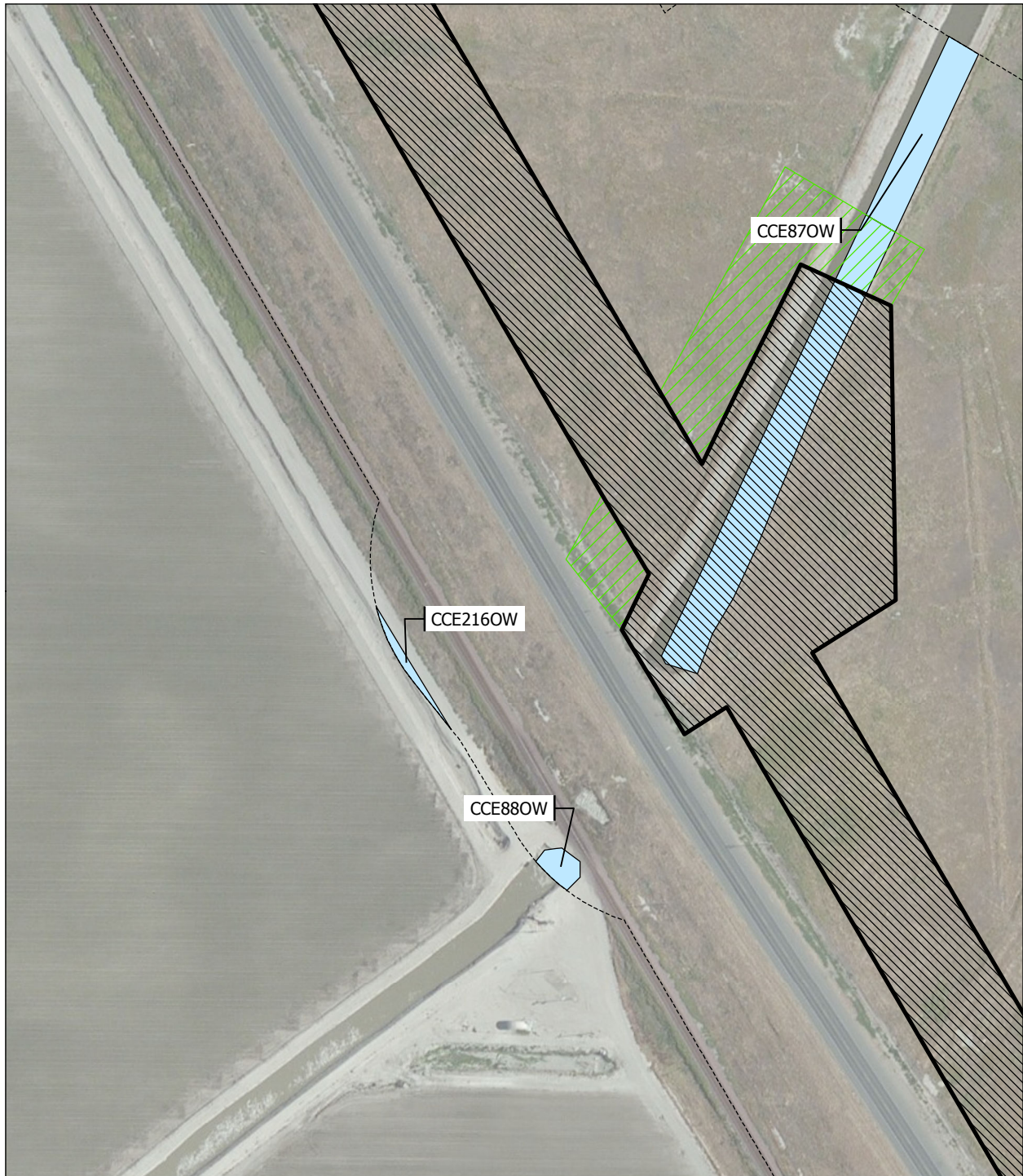
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Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



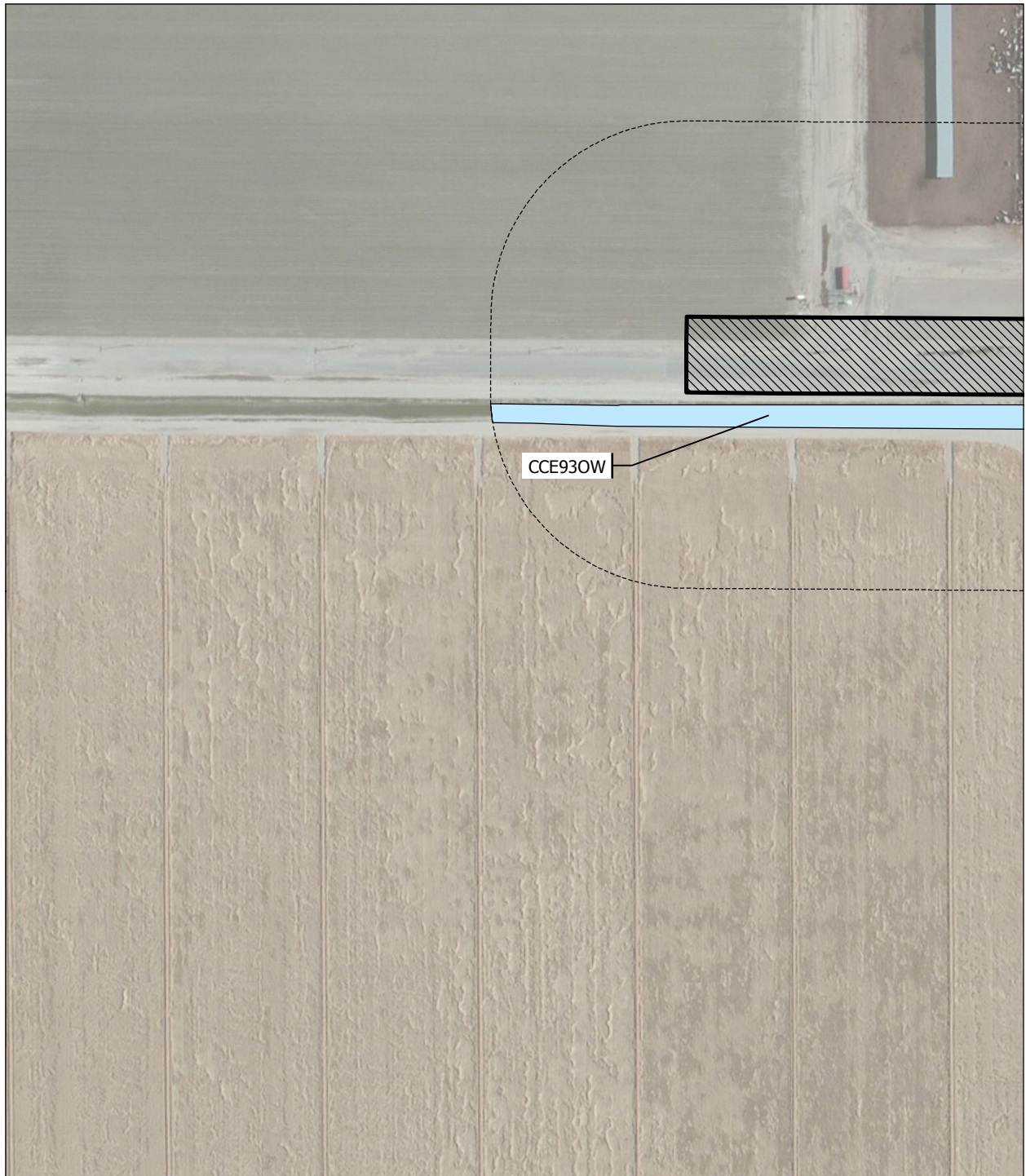
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Image source: ESRI

March 17, 2014



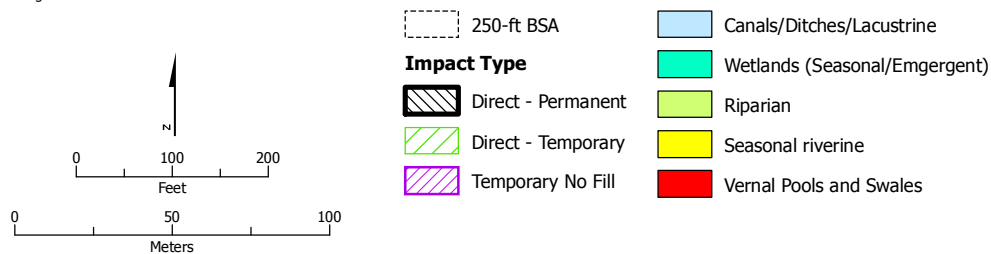
	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales

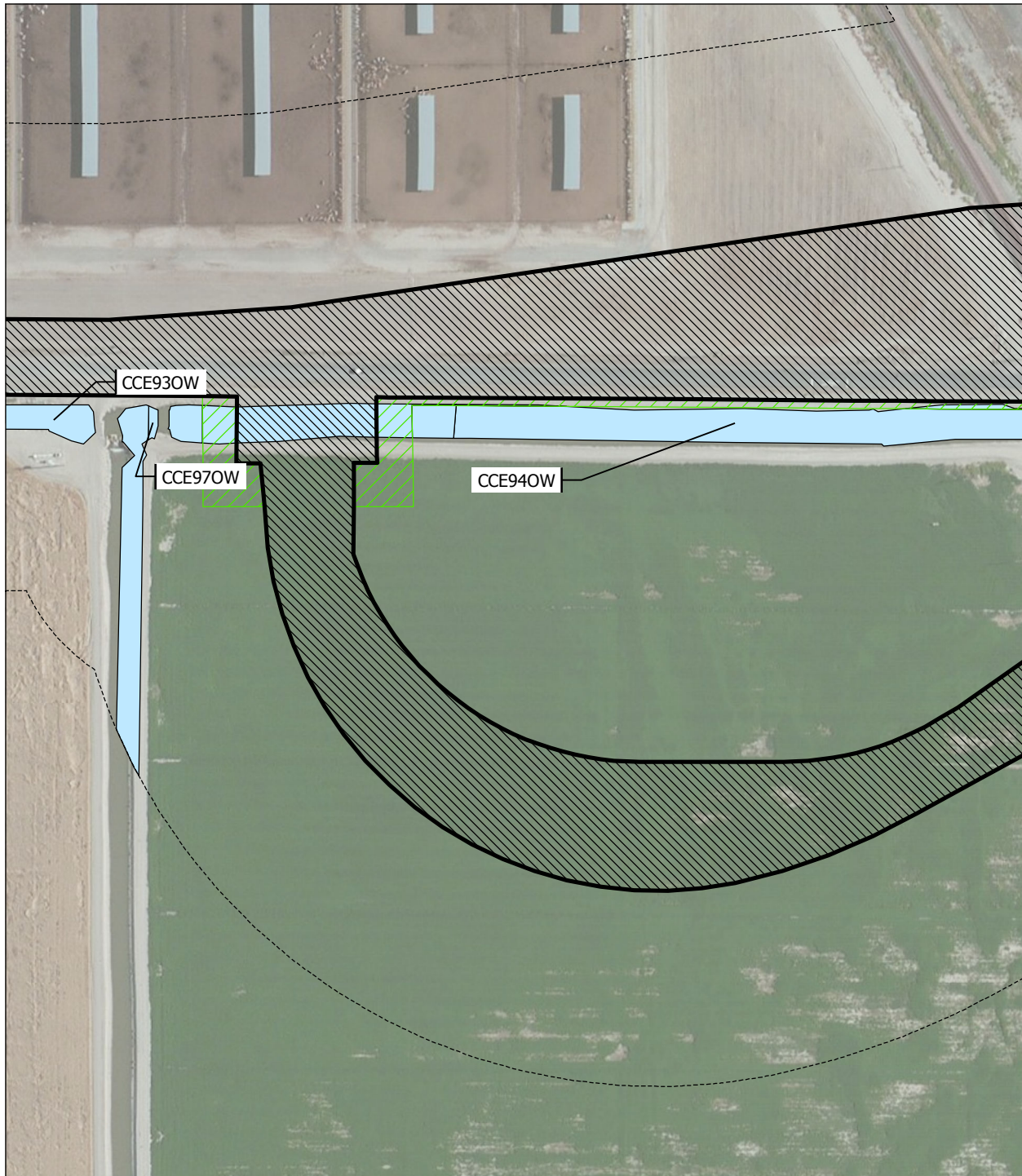
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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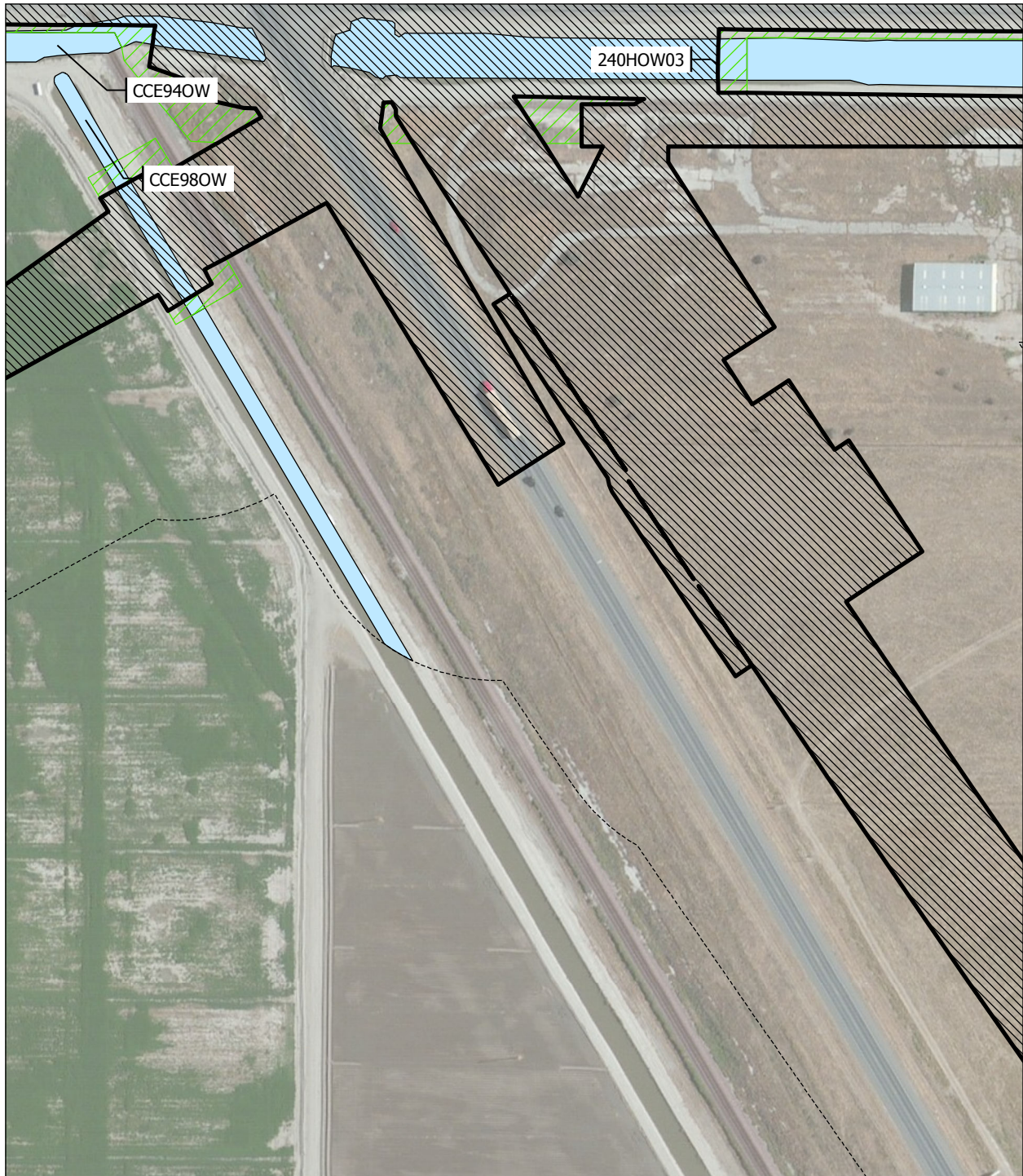


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March 17, 2014

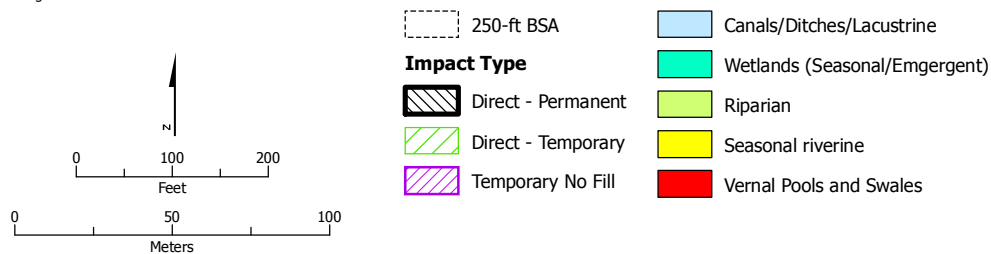


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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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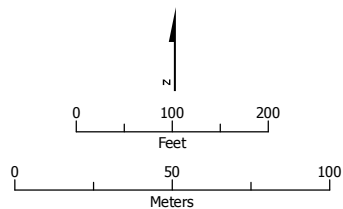


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales

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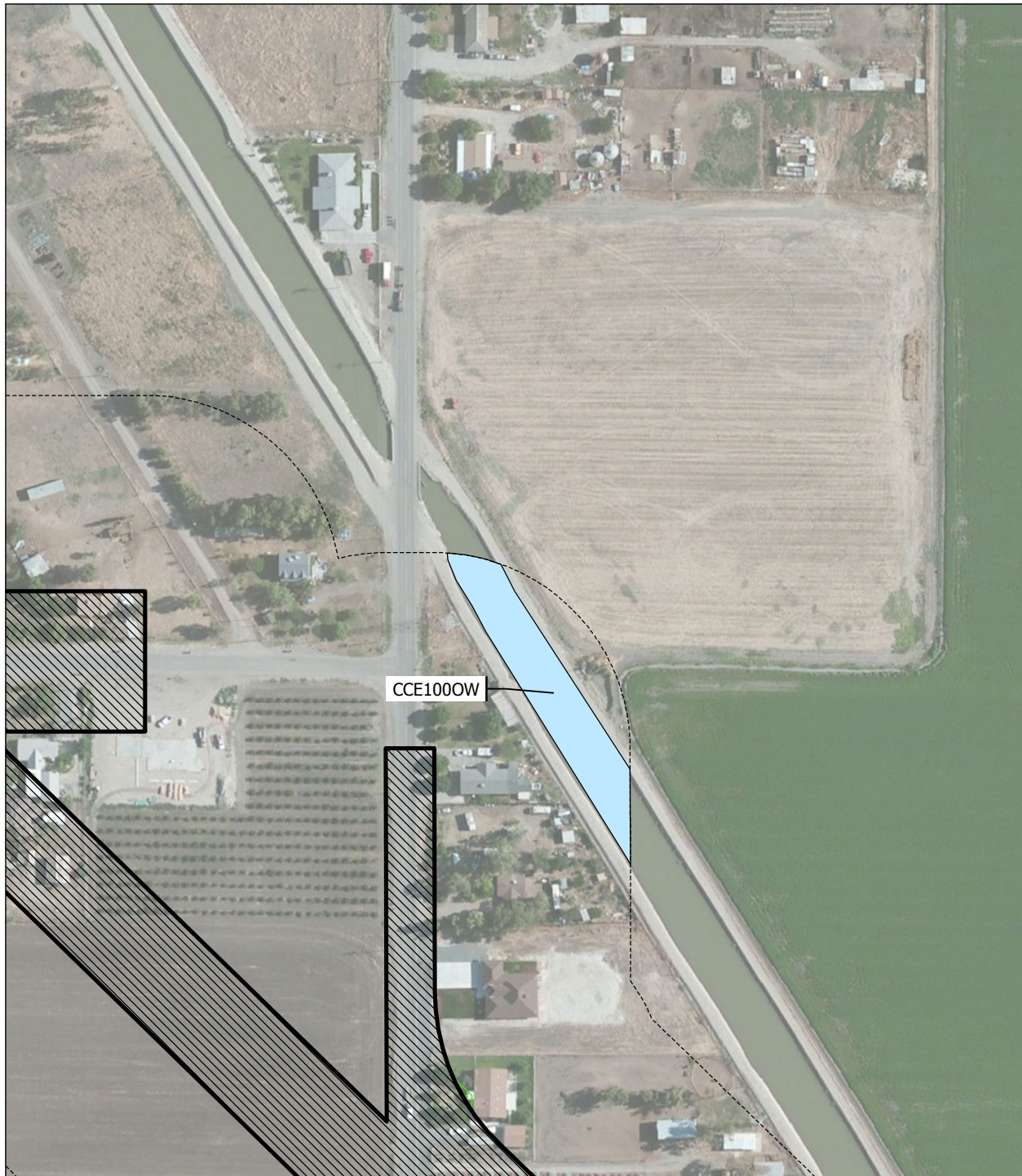
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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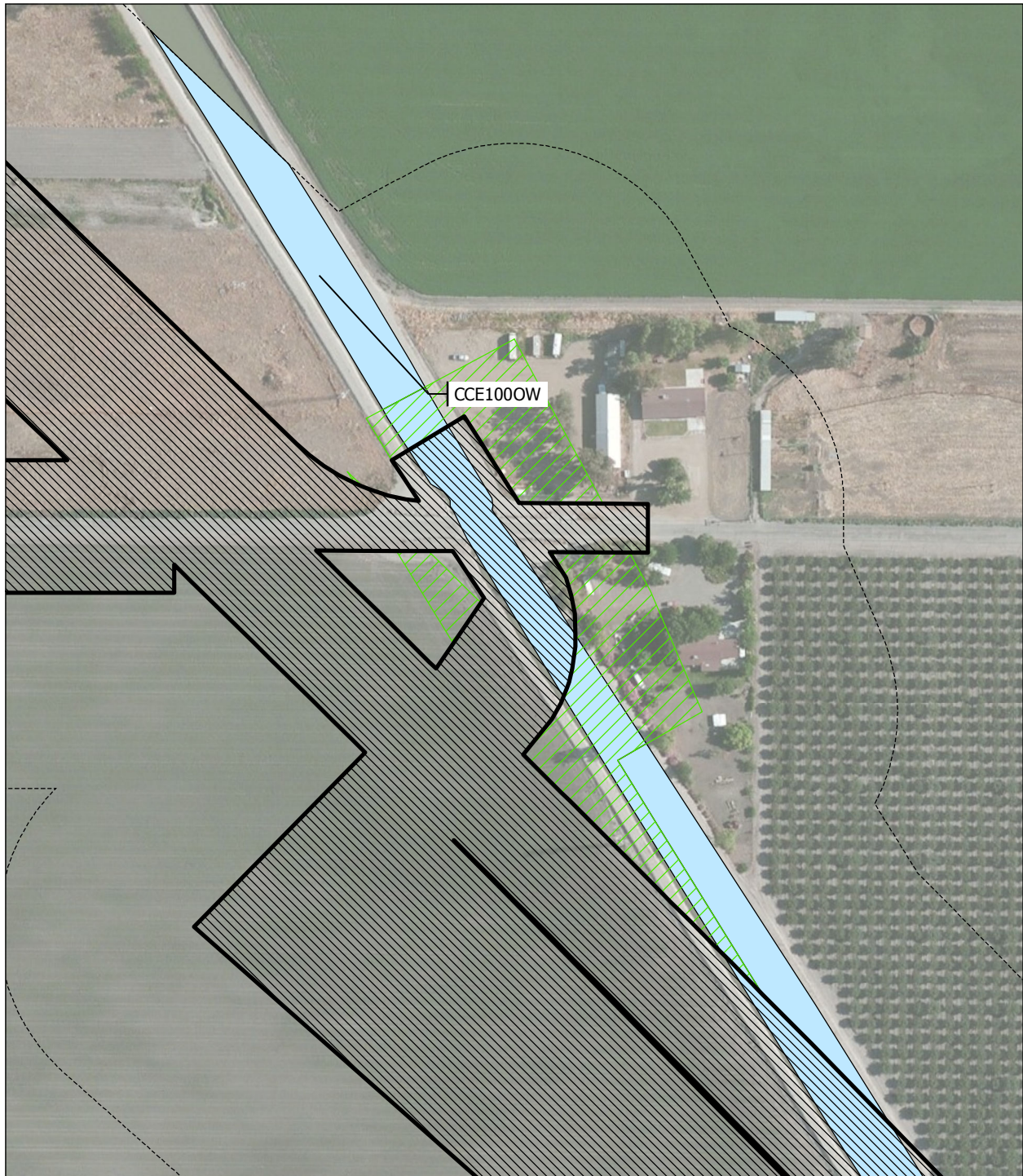
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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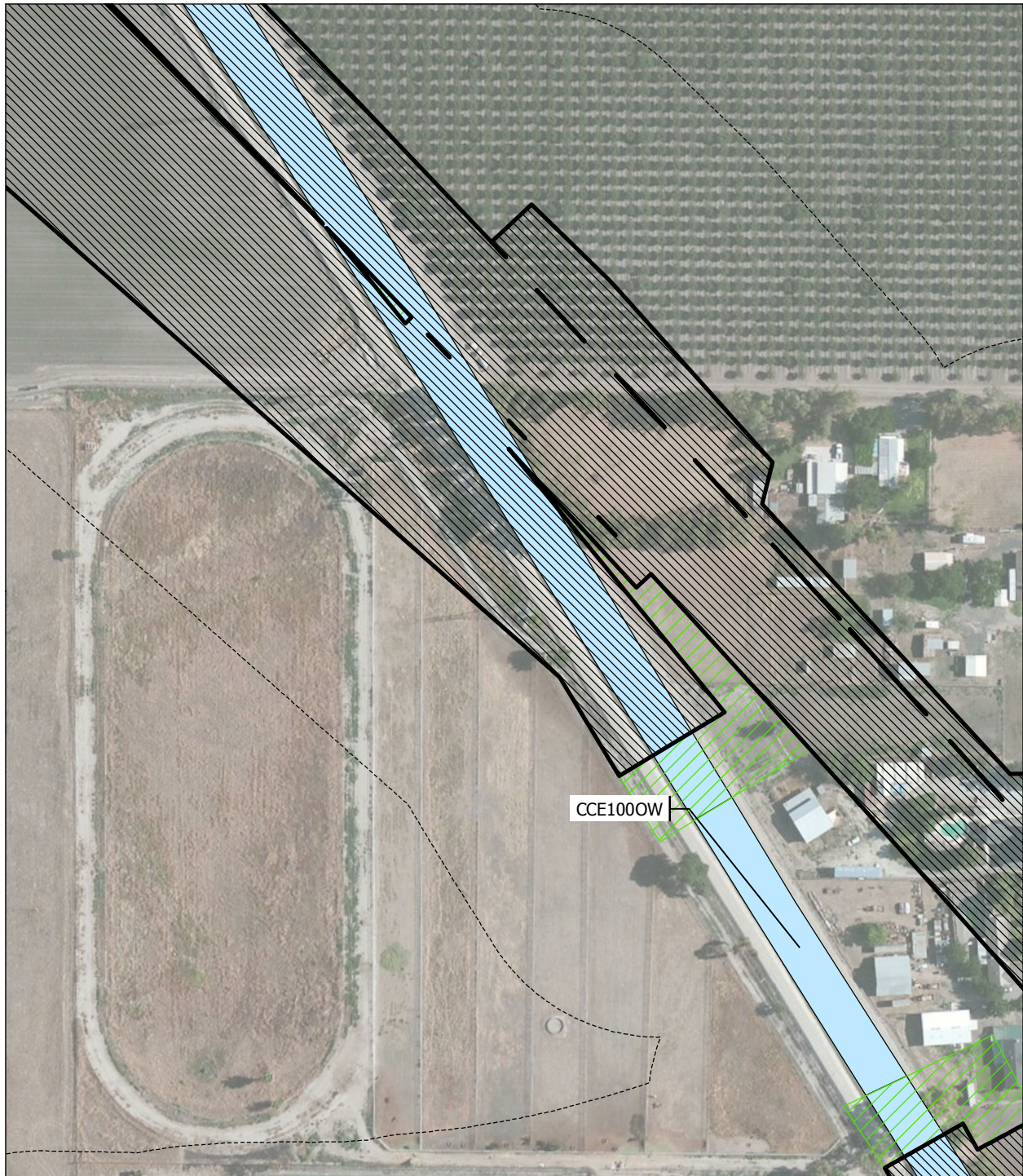


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



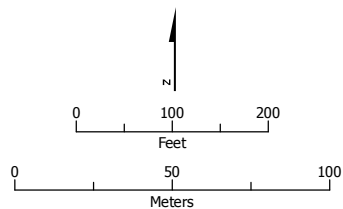
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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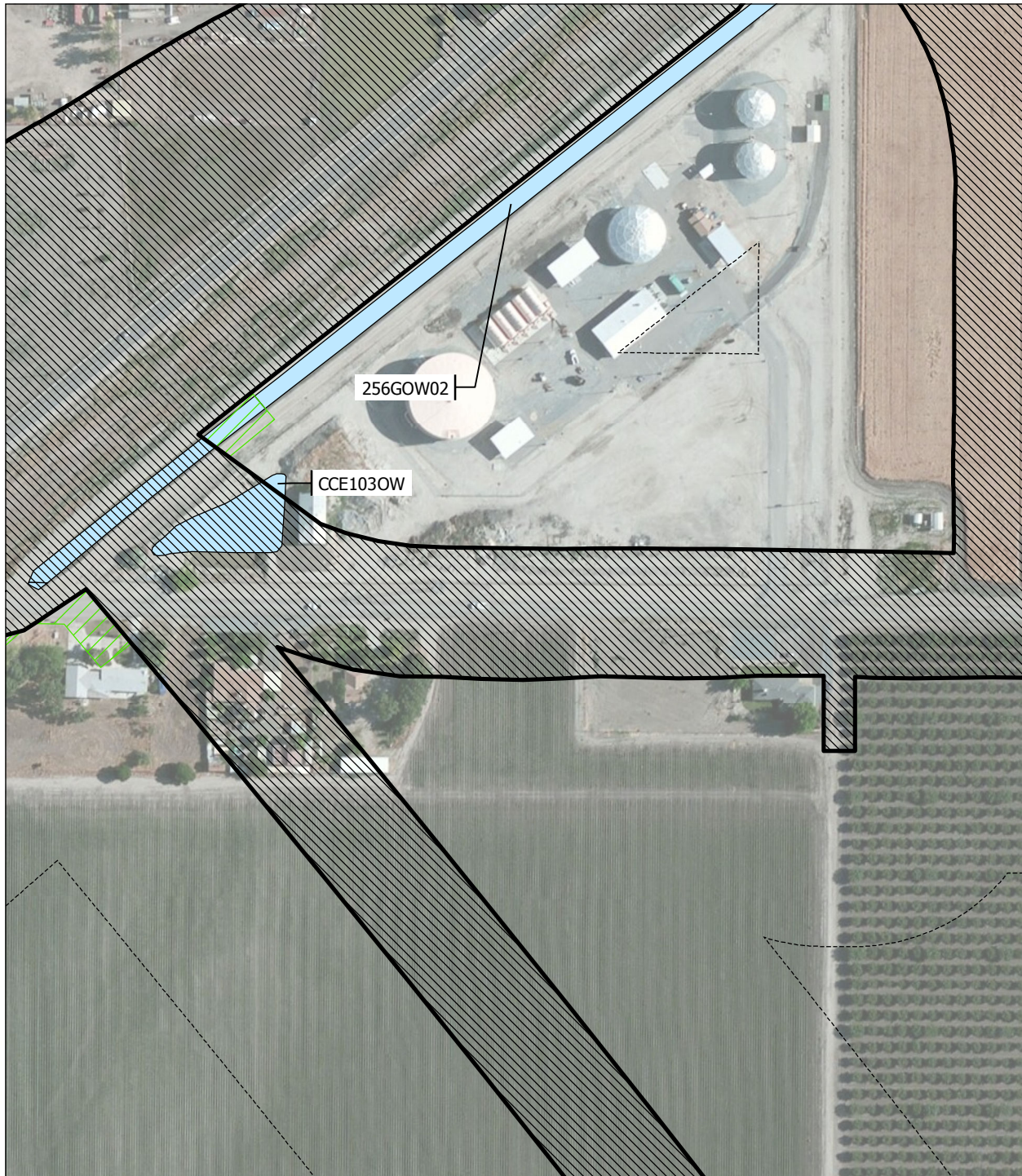


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



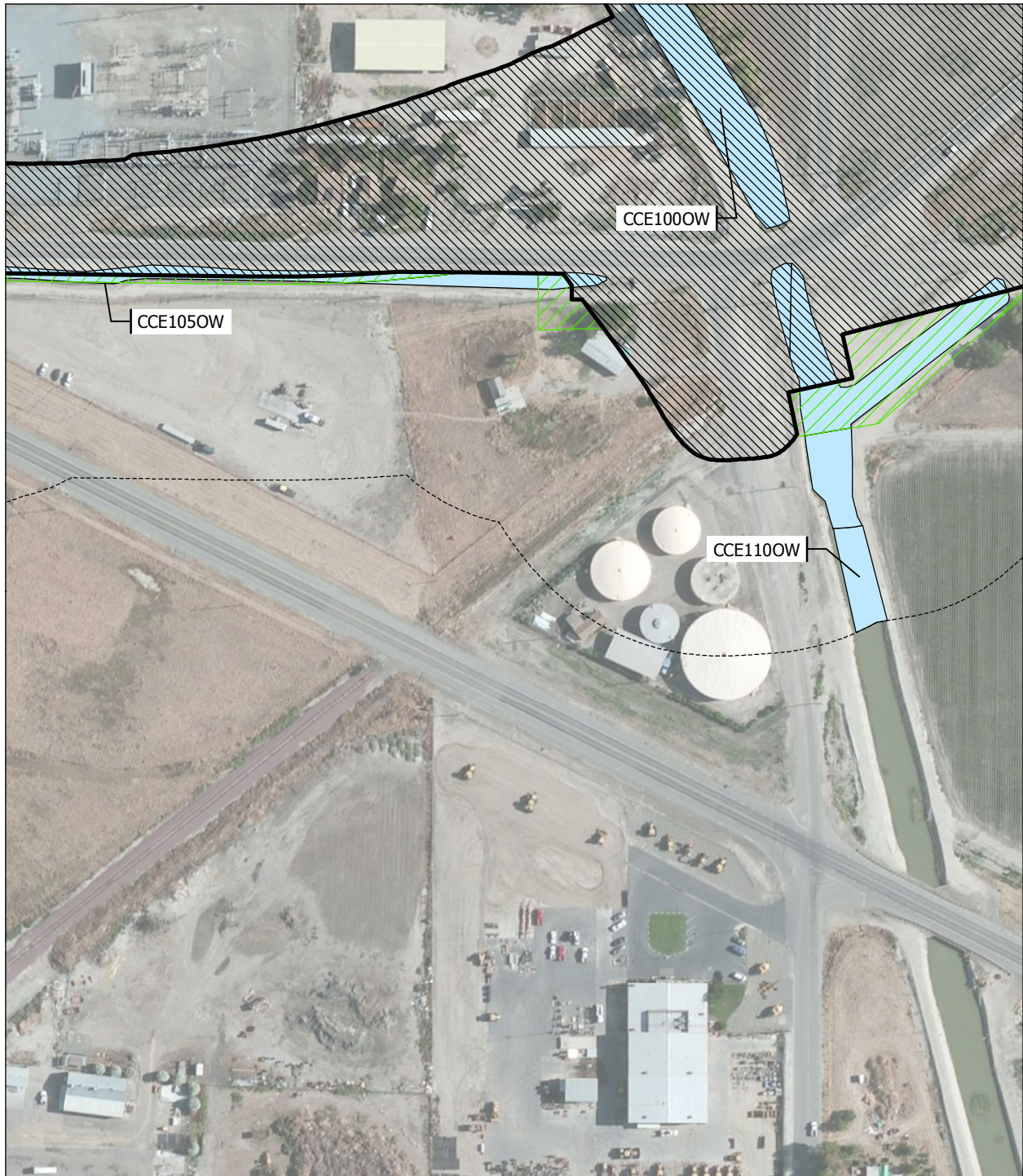
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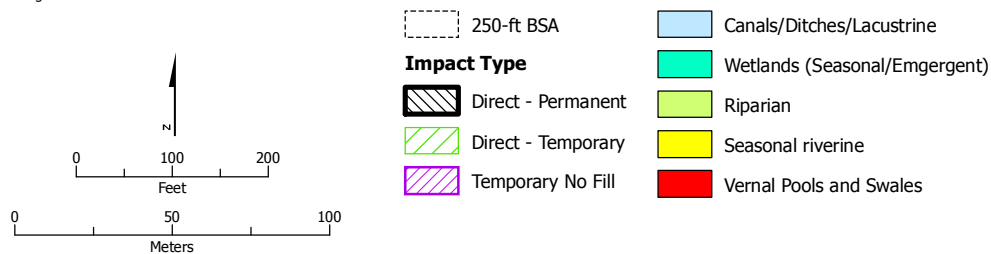
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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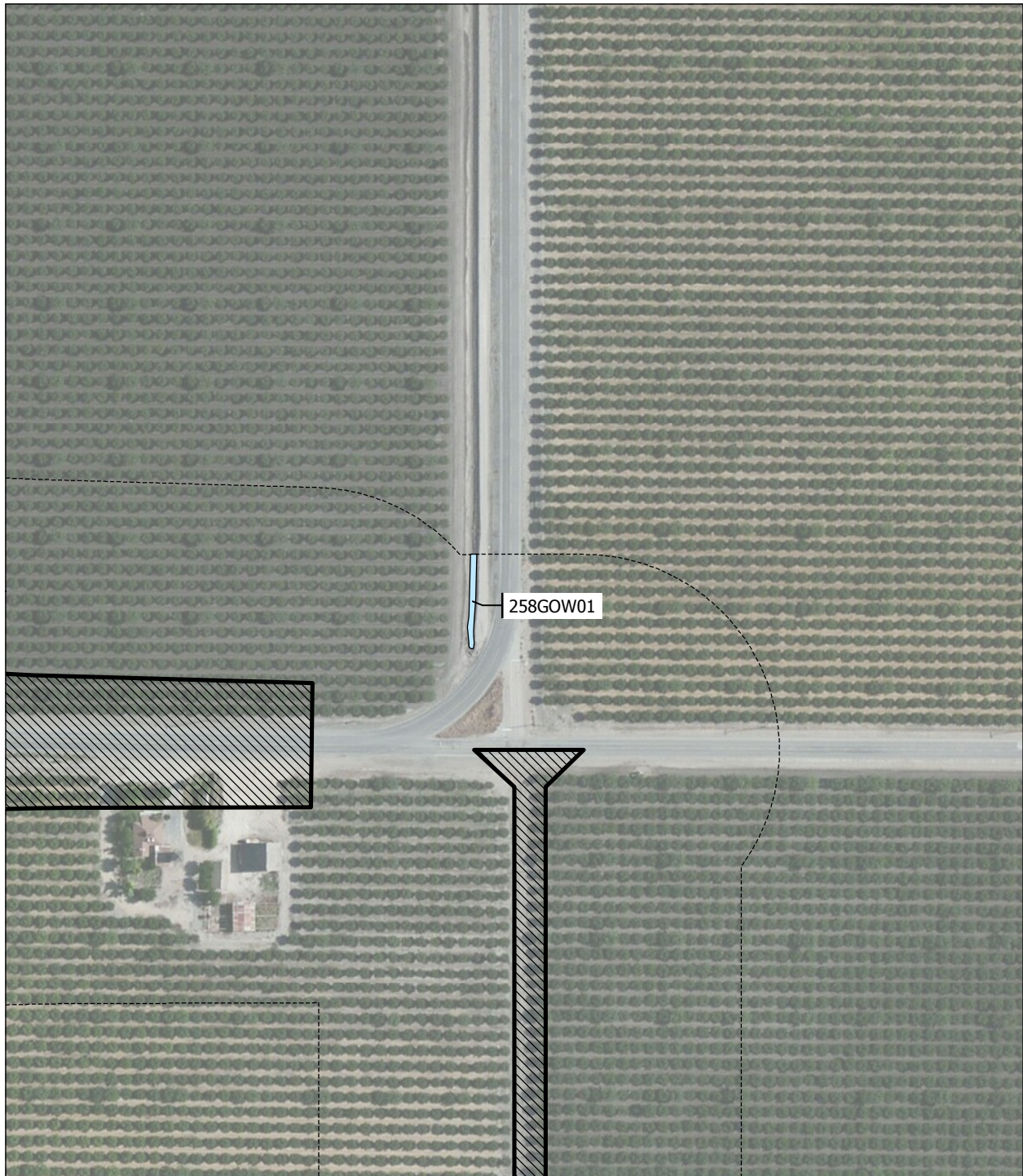
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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 	250-ft BSA	 	Canals/Ditches/Lacustrine
Impact Type		 	Wetlands (Seasonal/Emergent)
 	Direct - Permanent	 	Riparian
 	Direct - Temporary	 	Seasonal riverine
 	Temporary No Fill	 	Vernal Pools and Swales

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

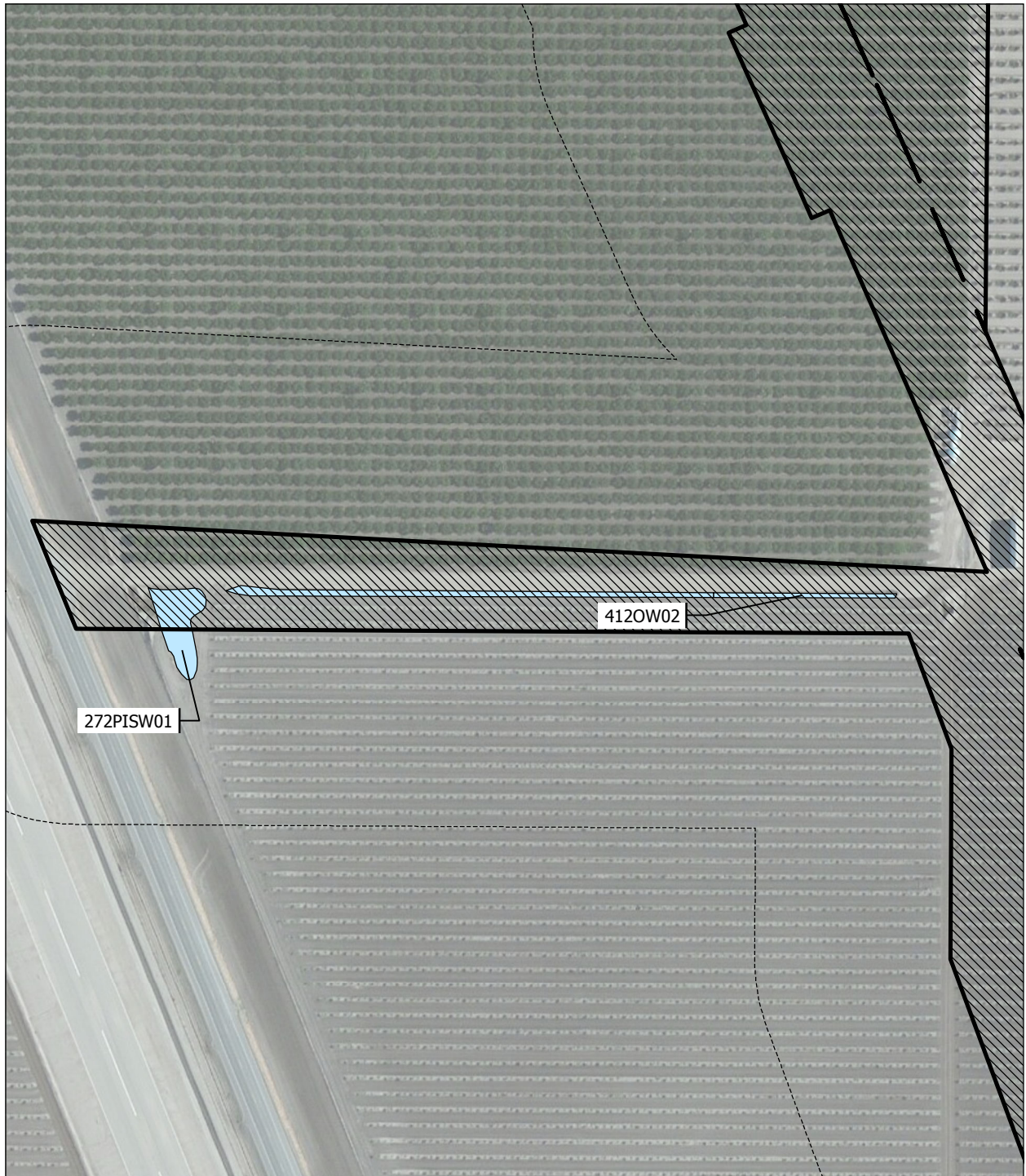


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March 17, 2014

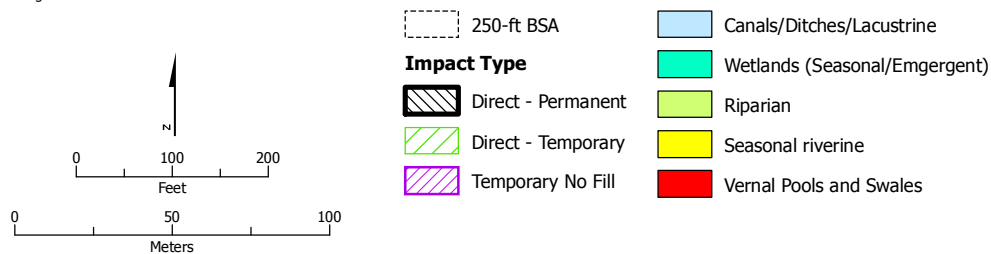


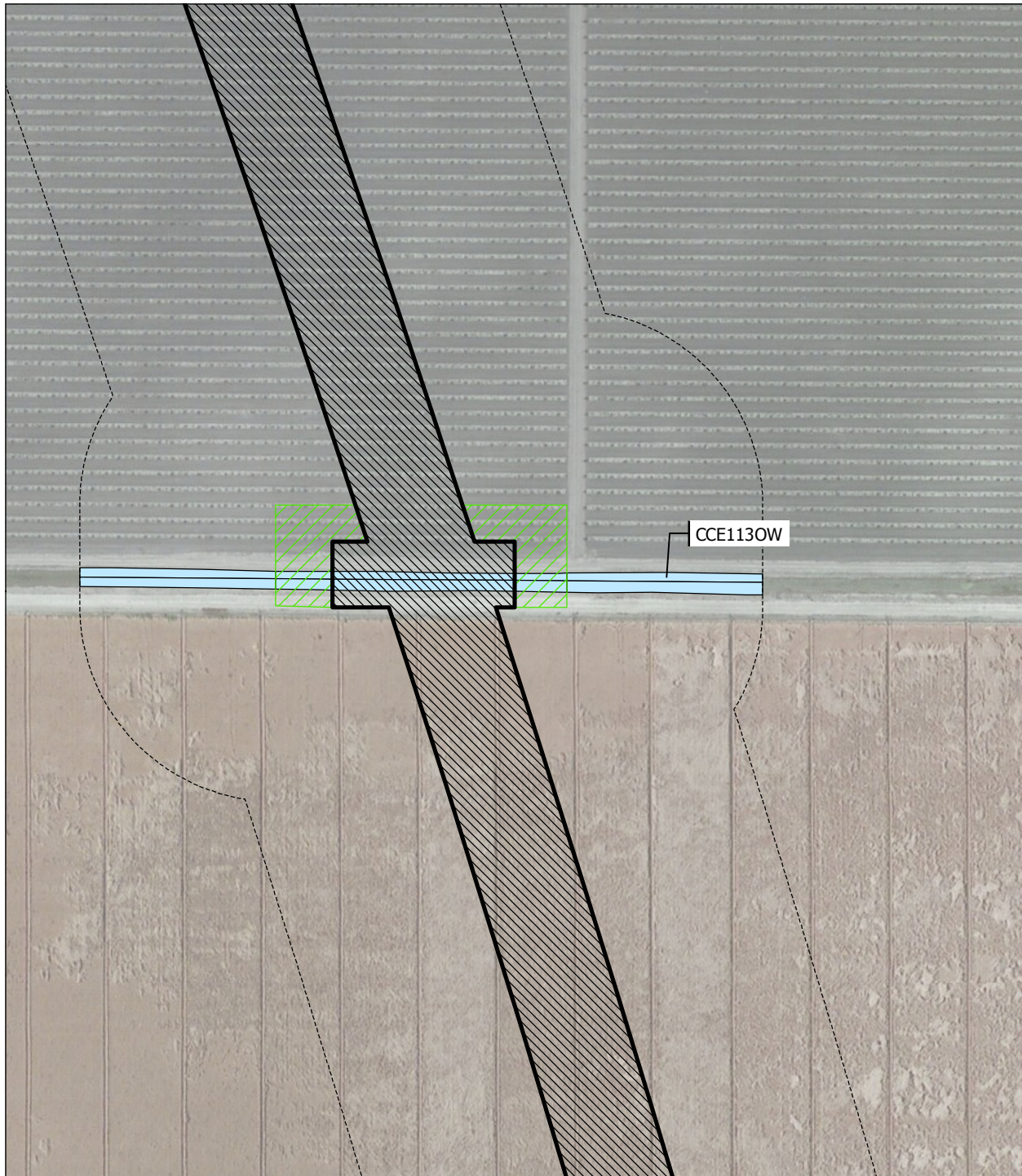
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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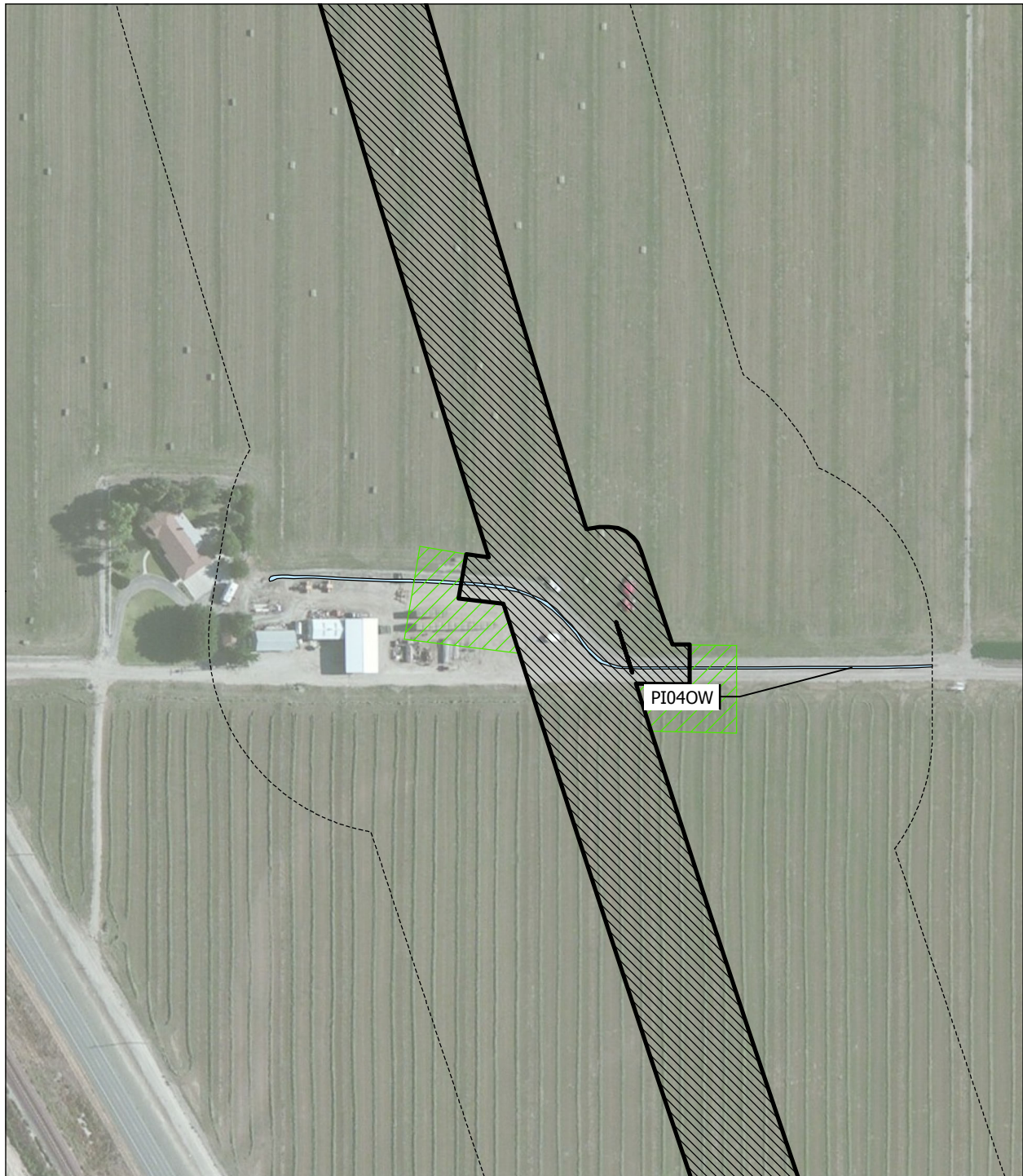


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



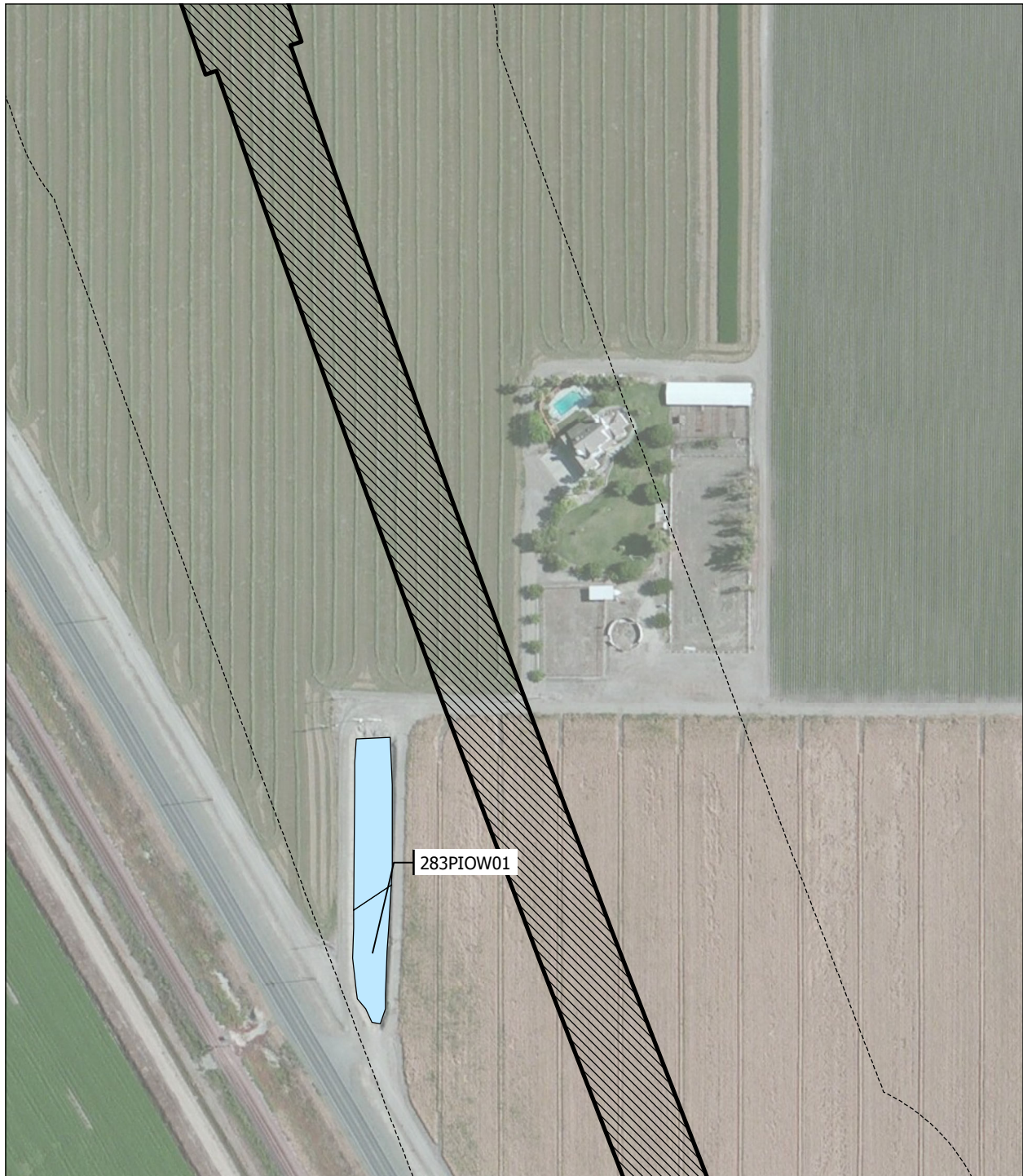
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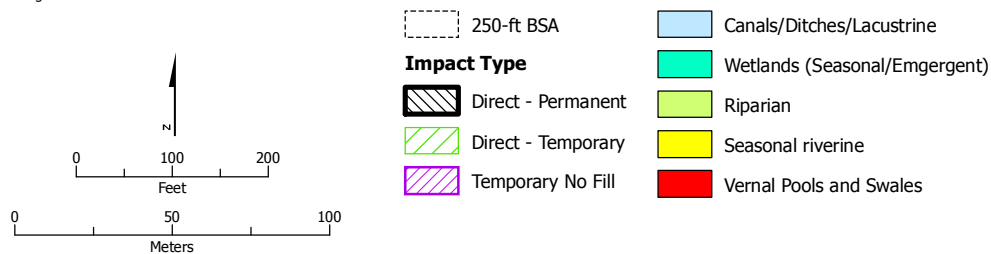
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

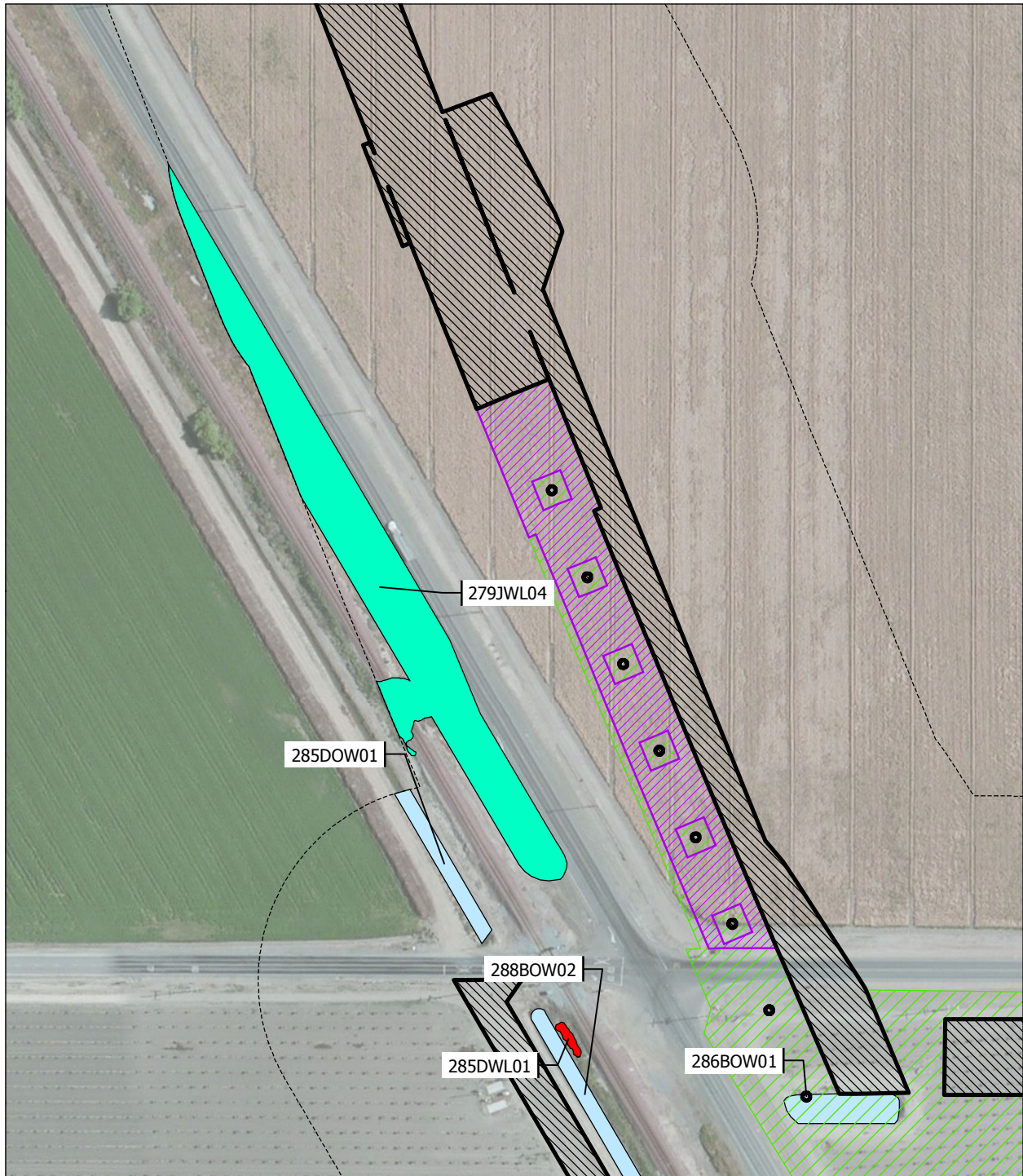
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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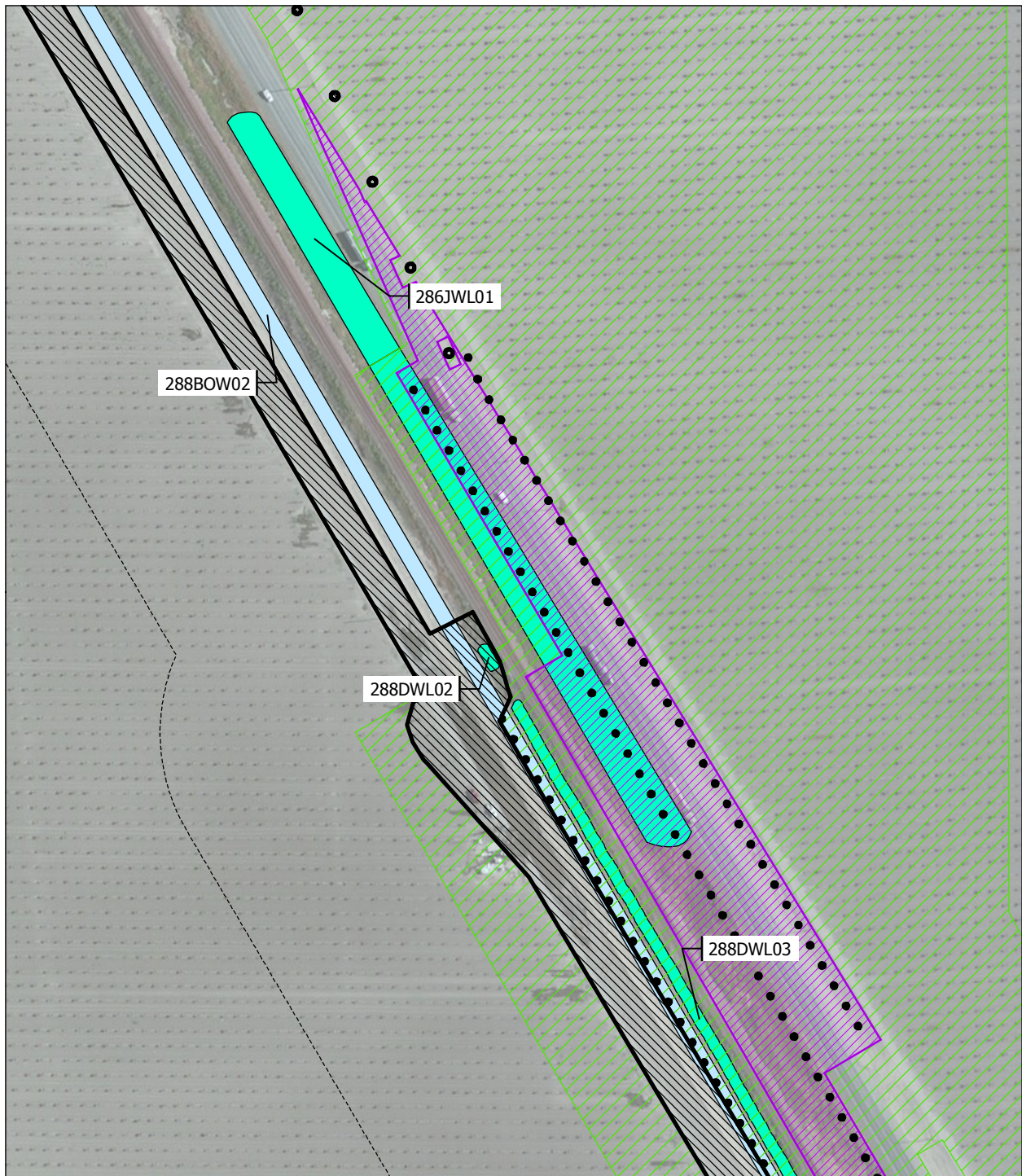
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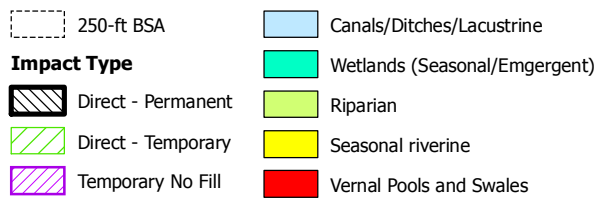
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Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales

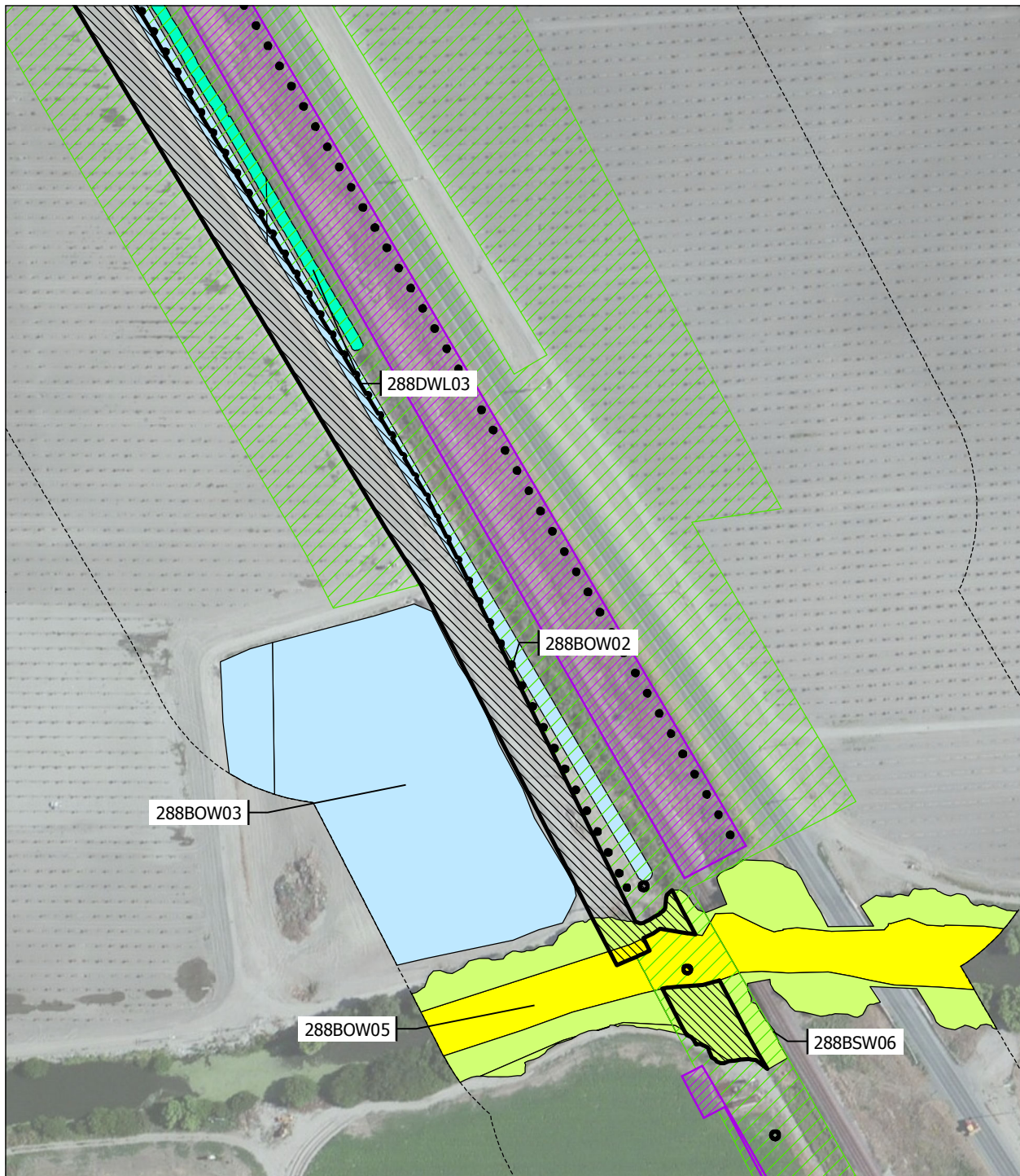
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

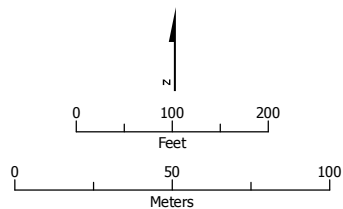
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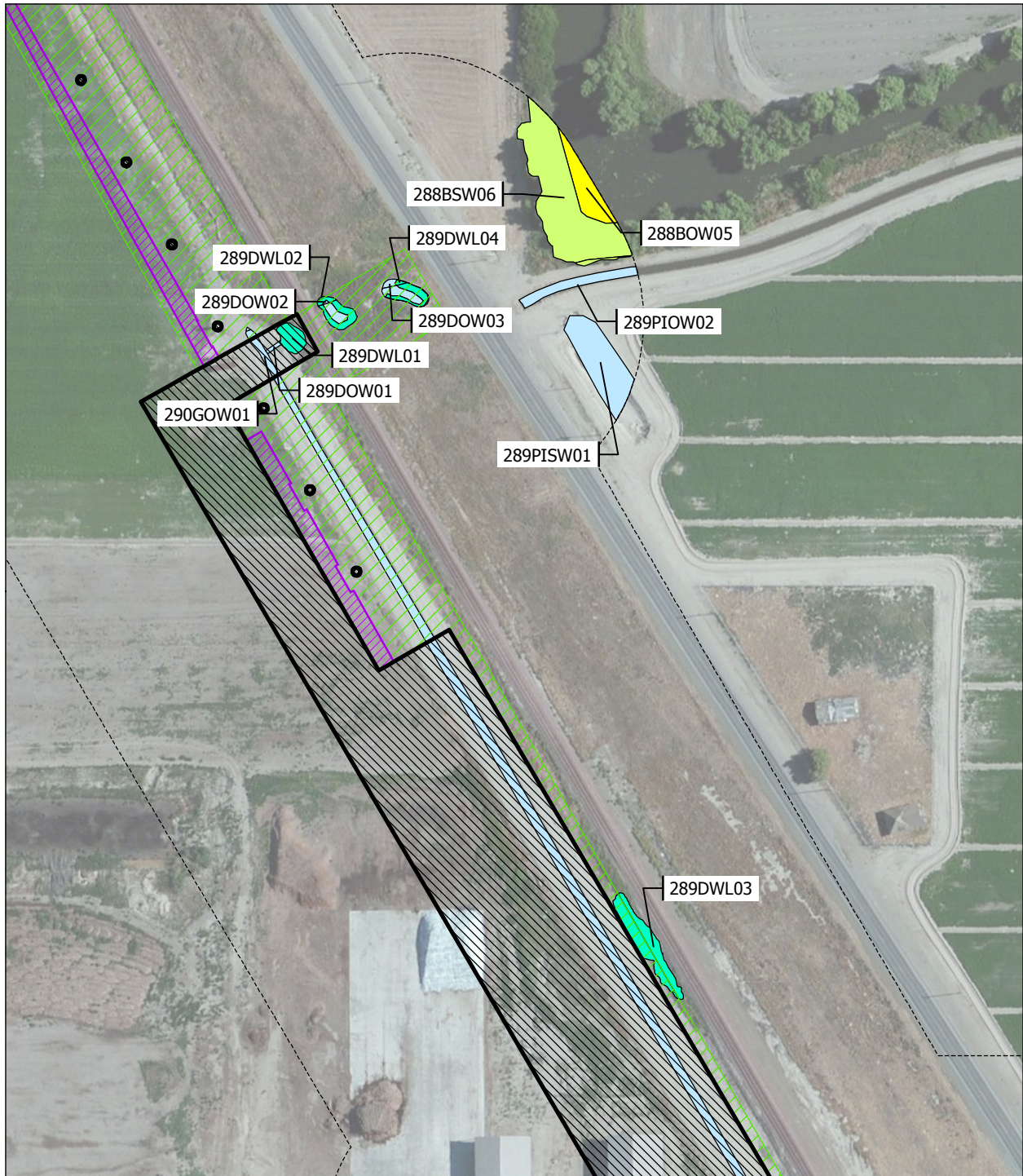
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Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

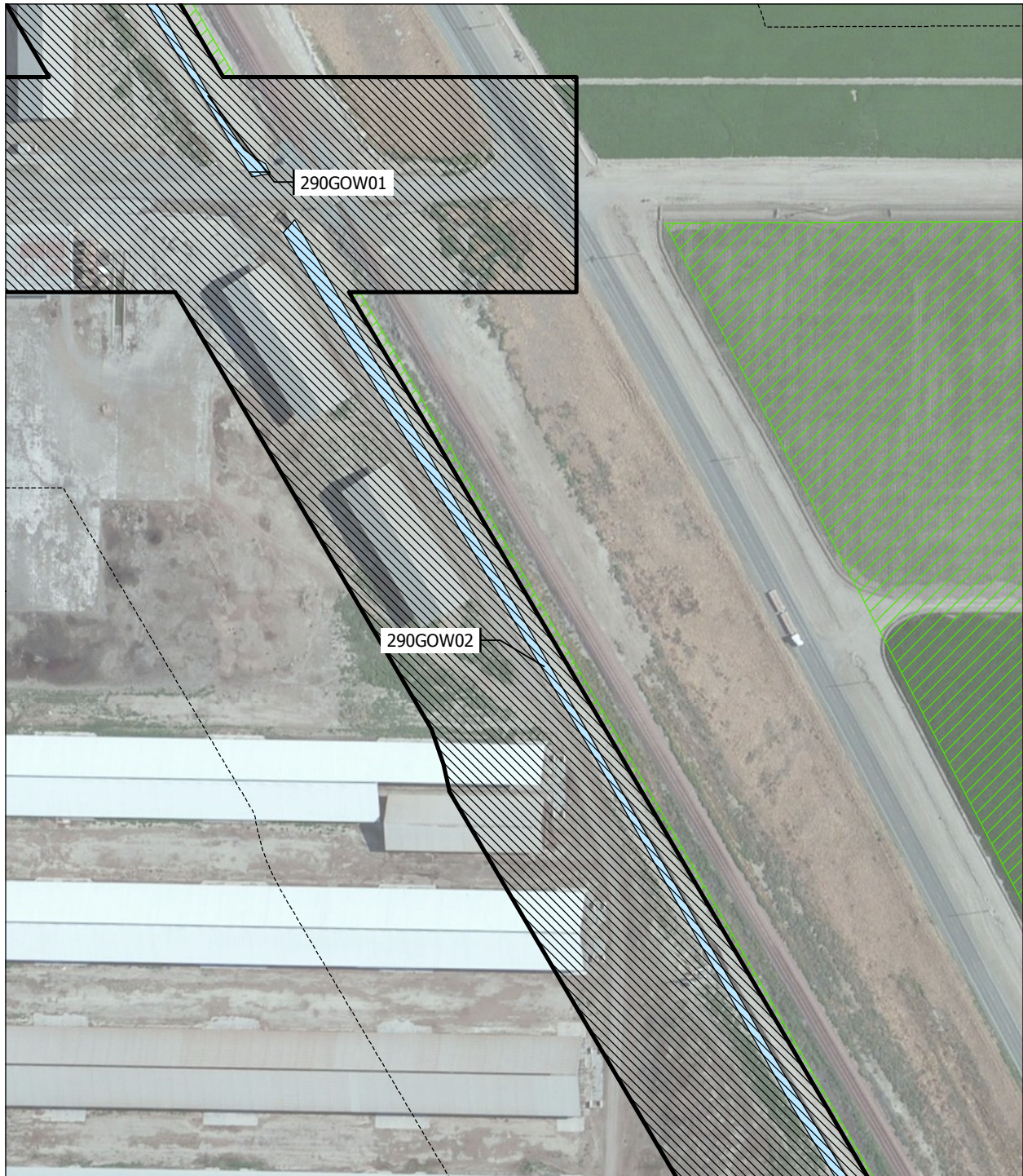


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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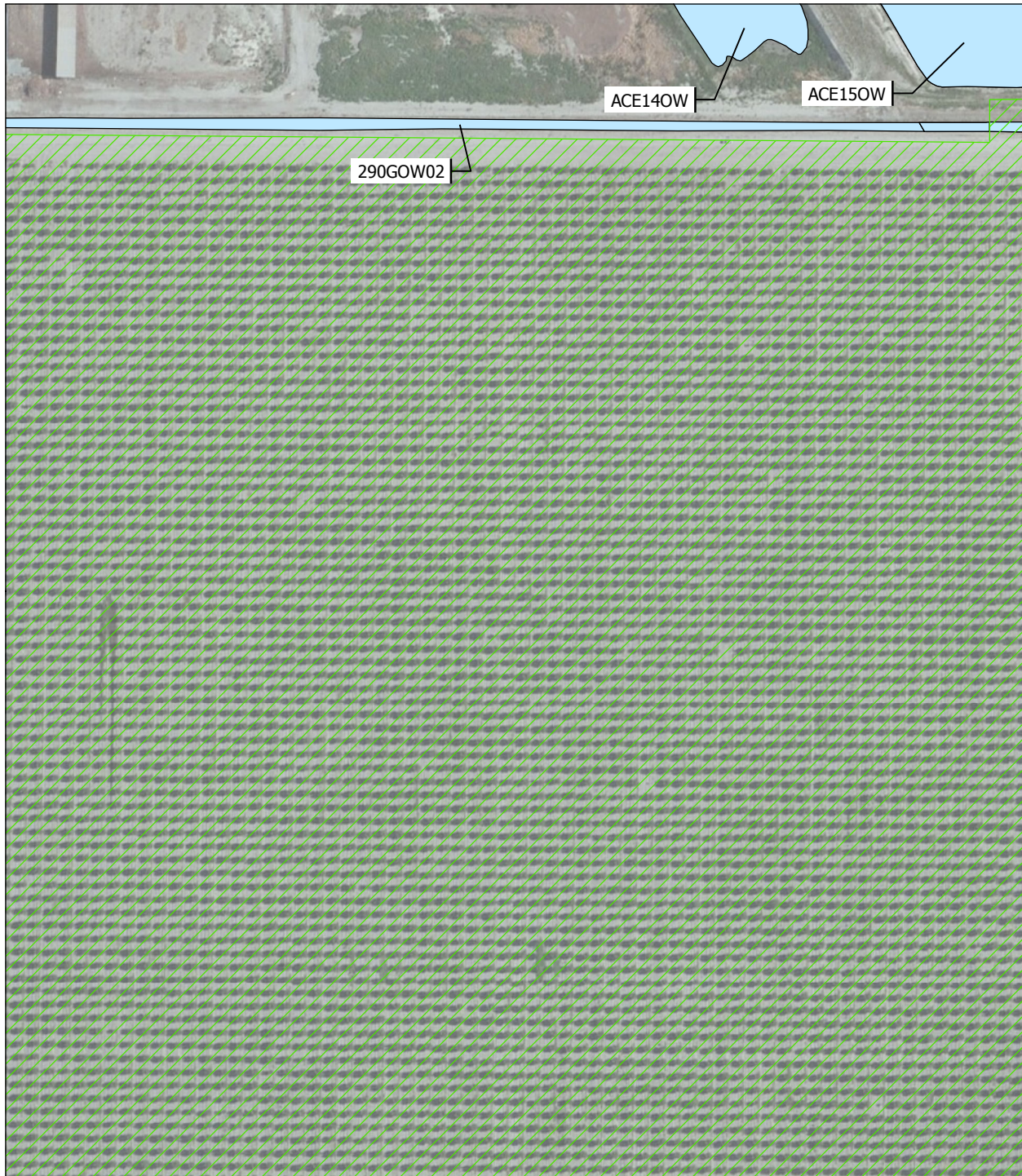


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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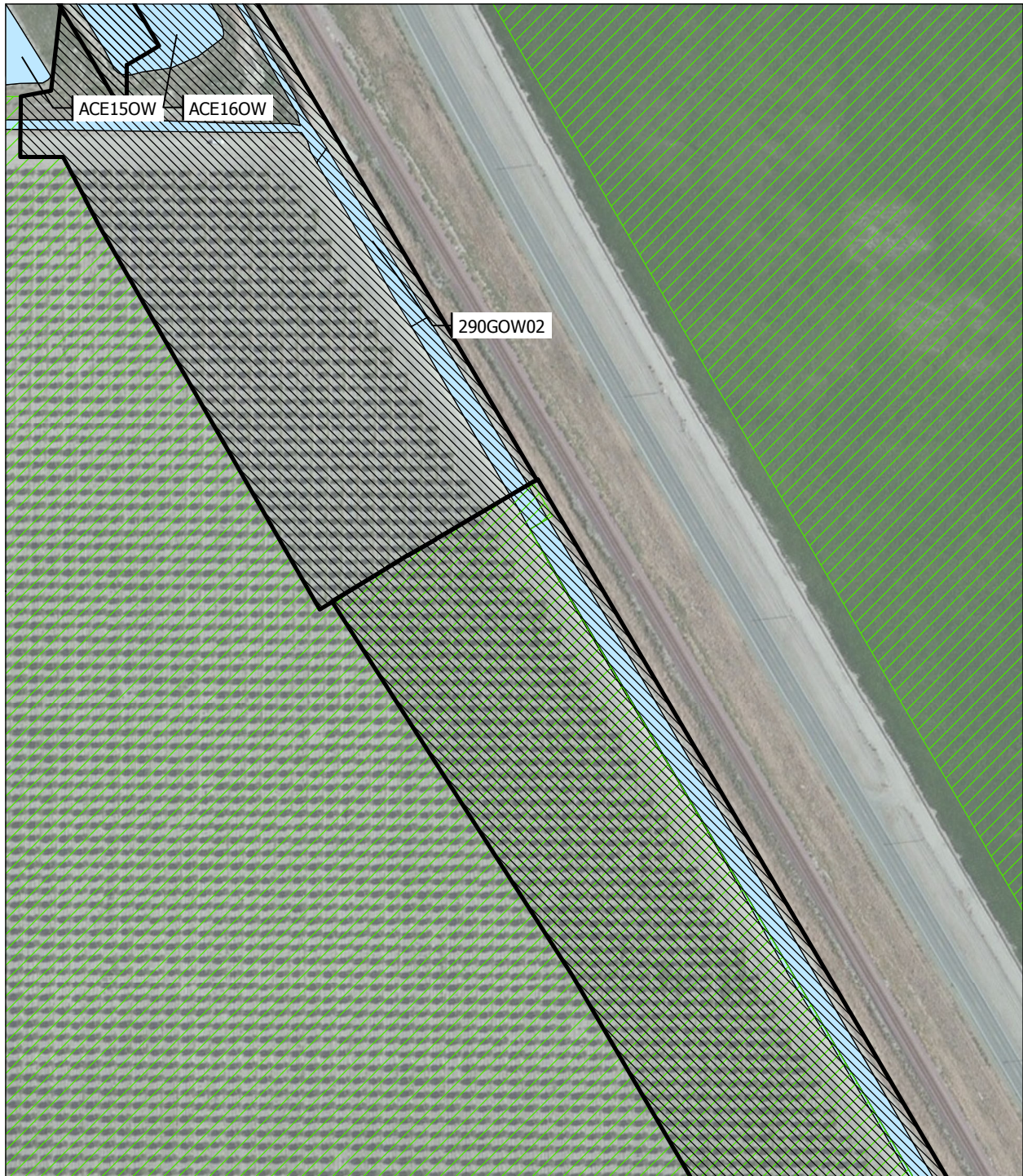
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

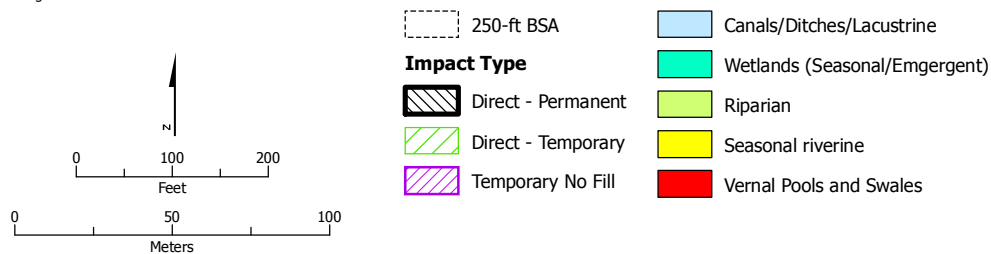
March 17, 2014





Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014





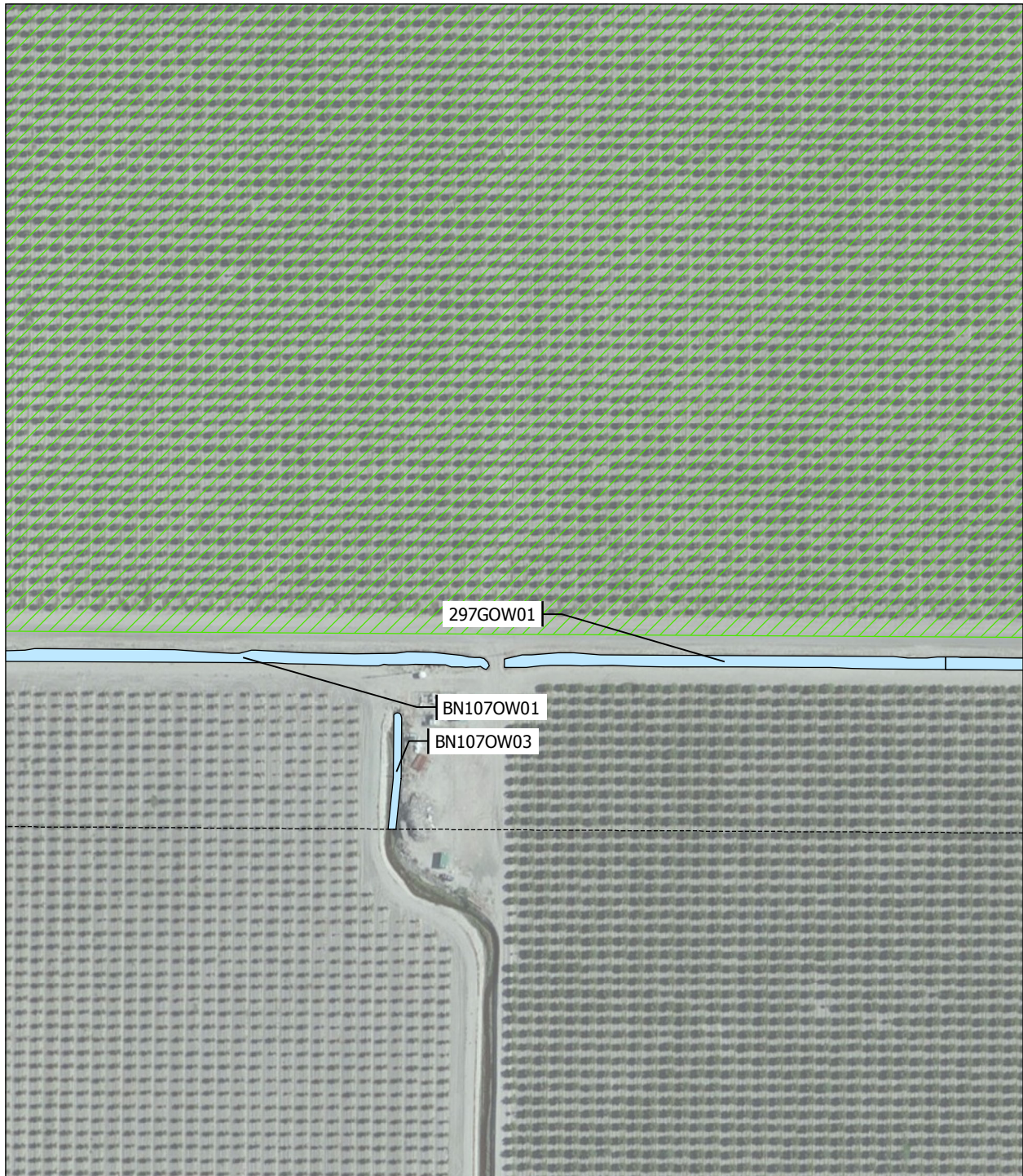
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Image source: ESRI

March 17, 2014



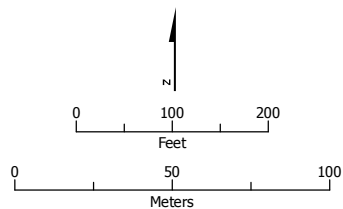
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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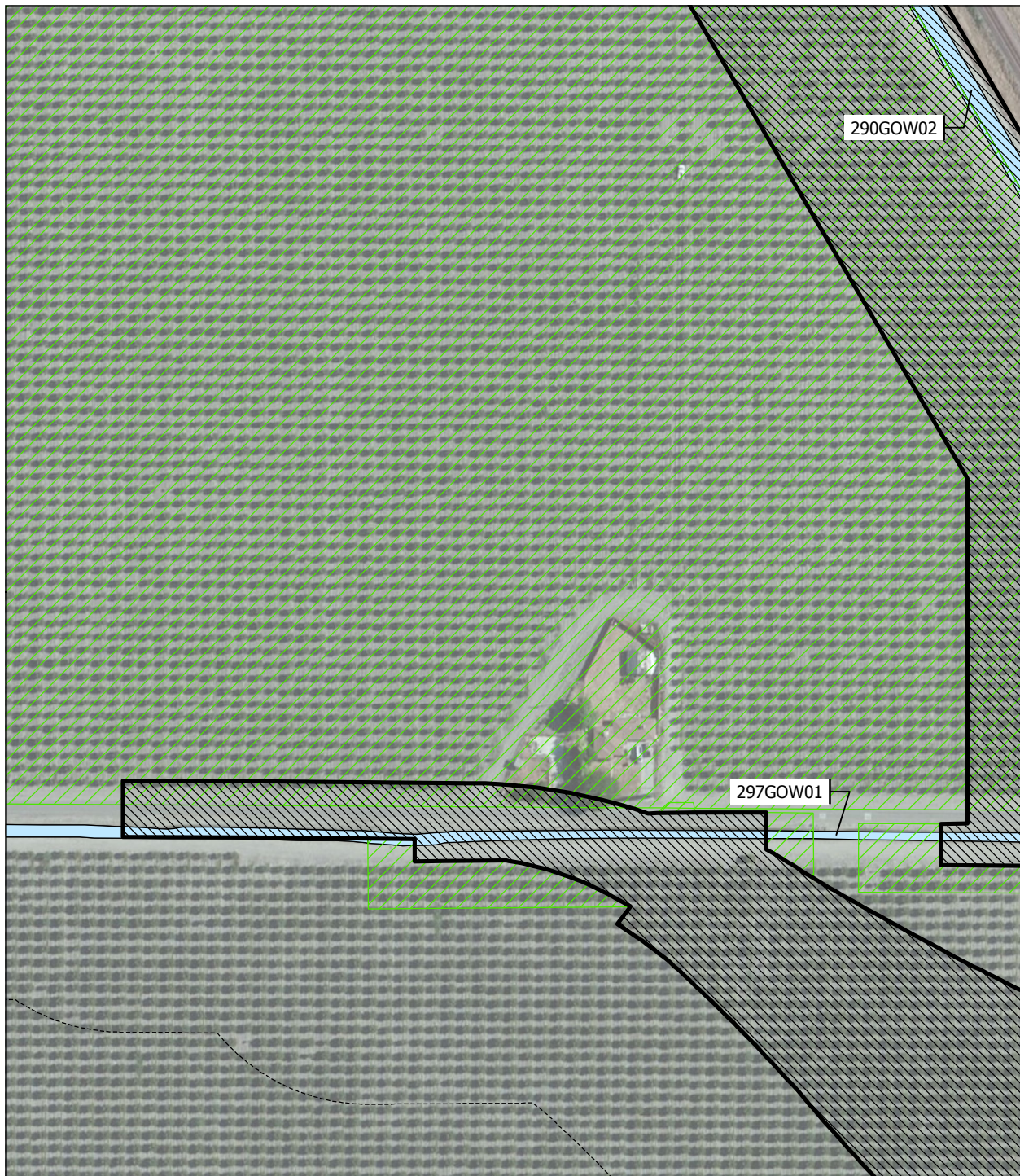


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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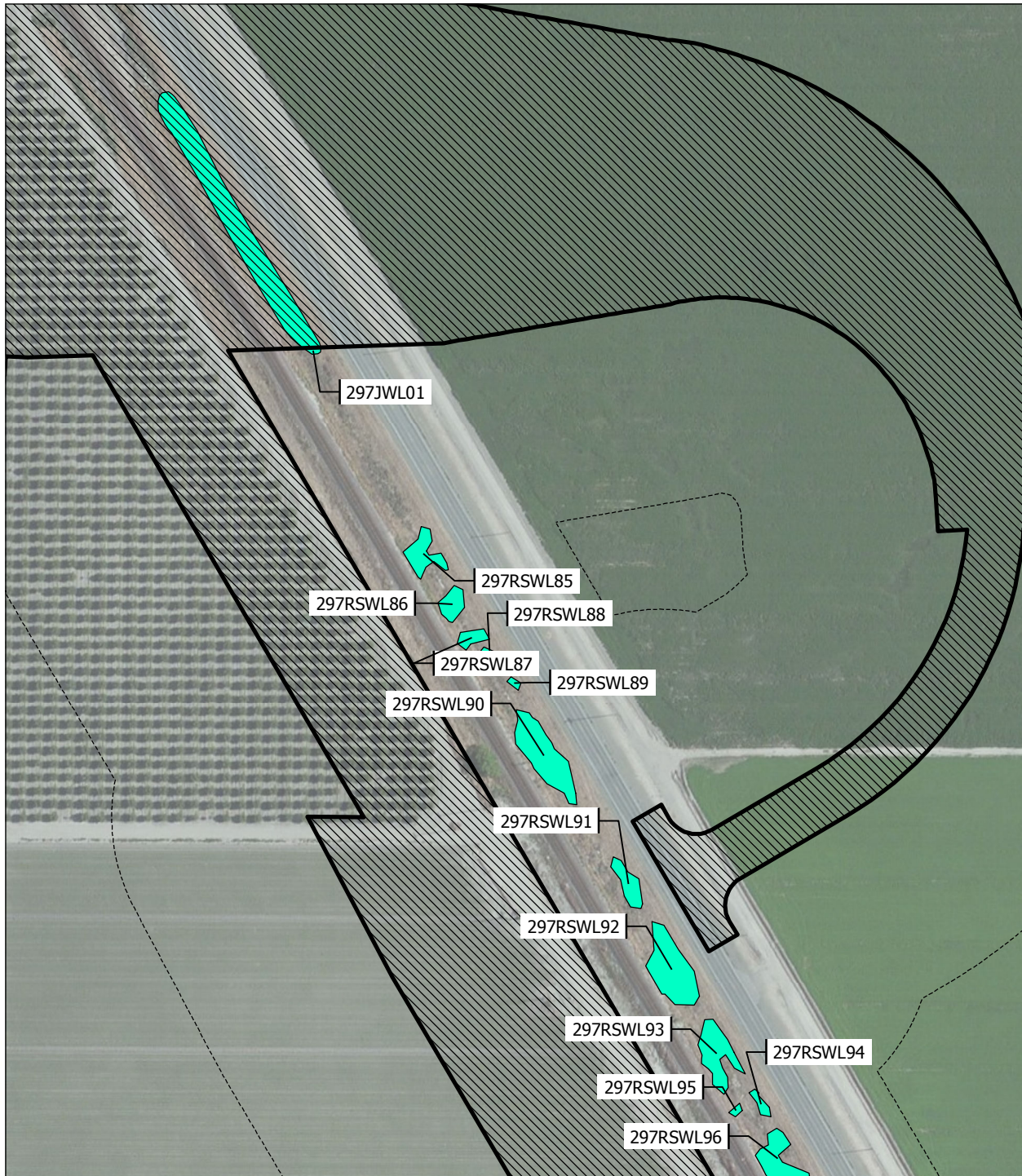


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



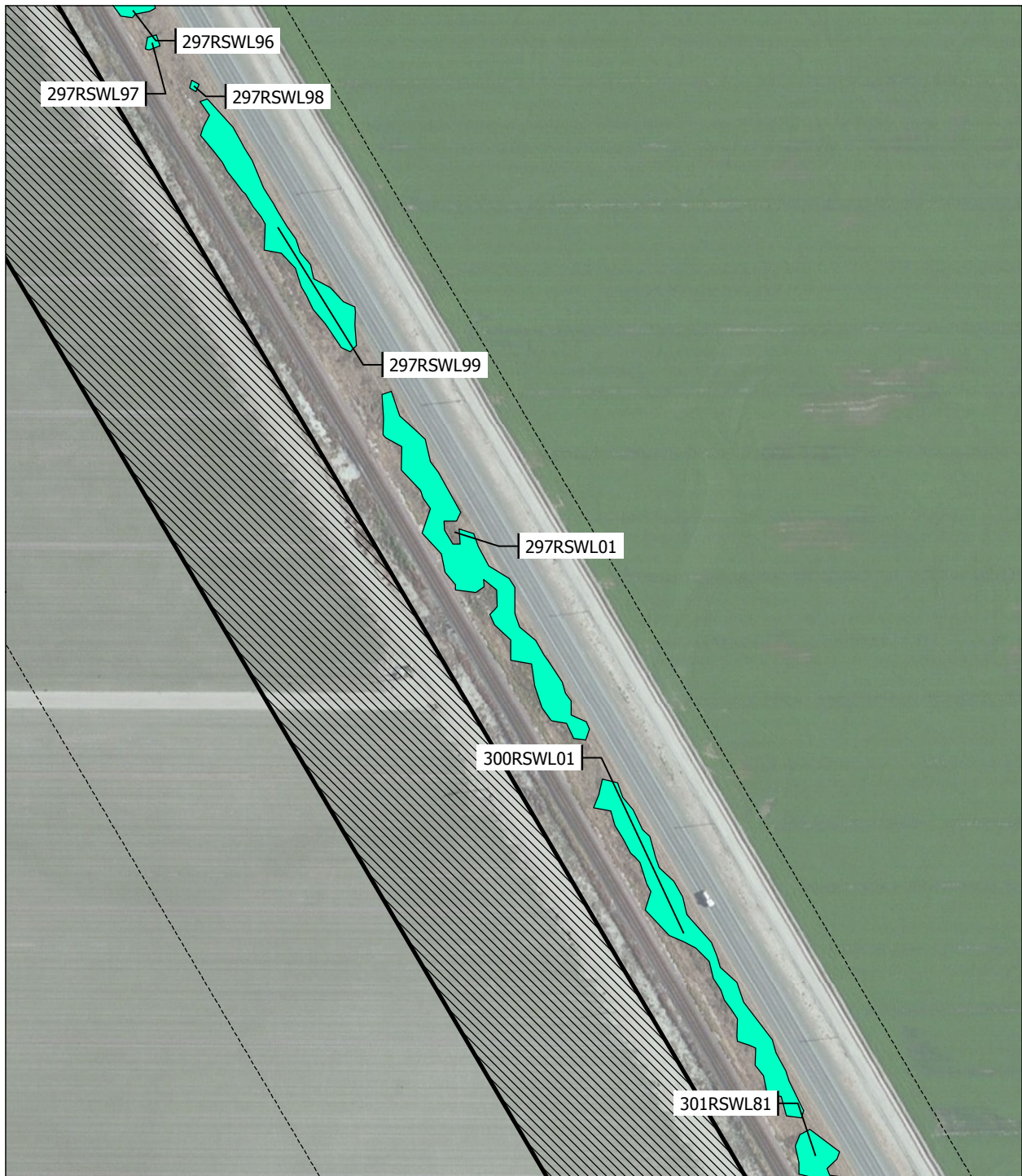
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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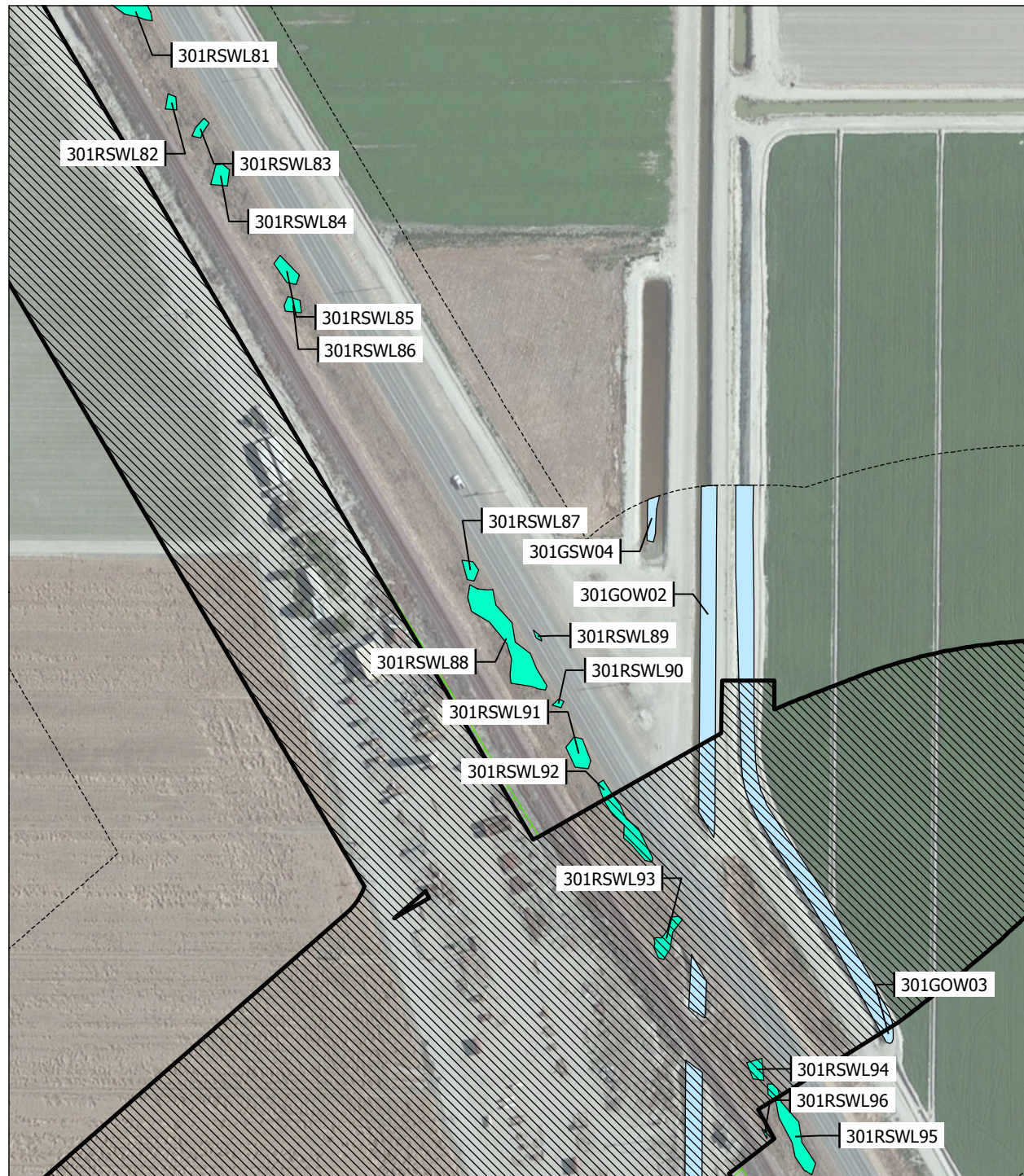


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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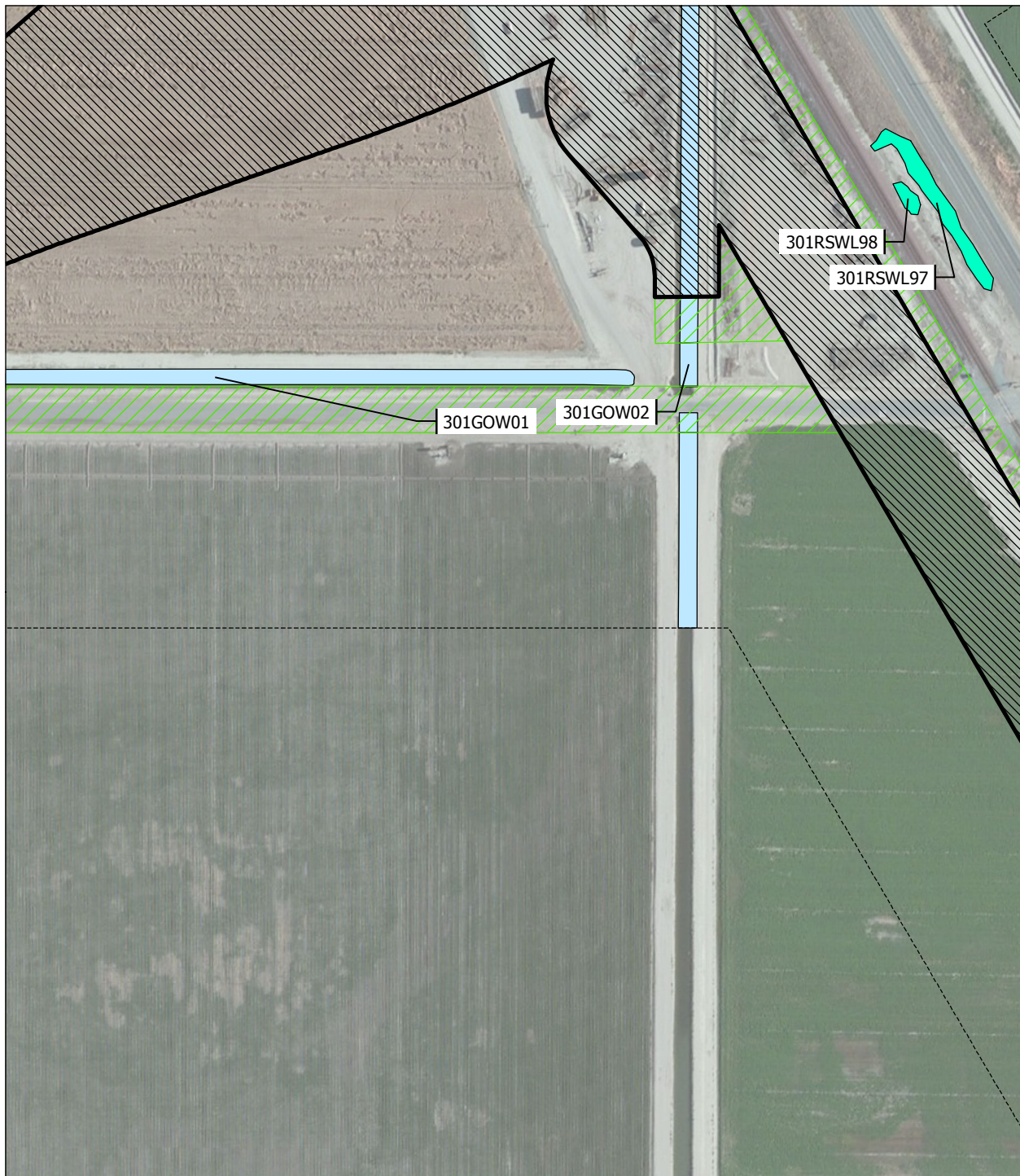


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



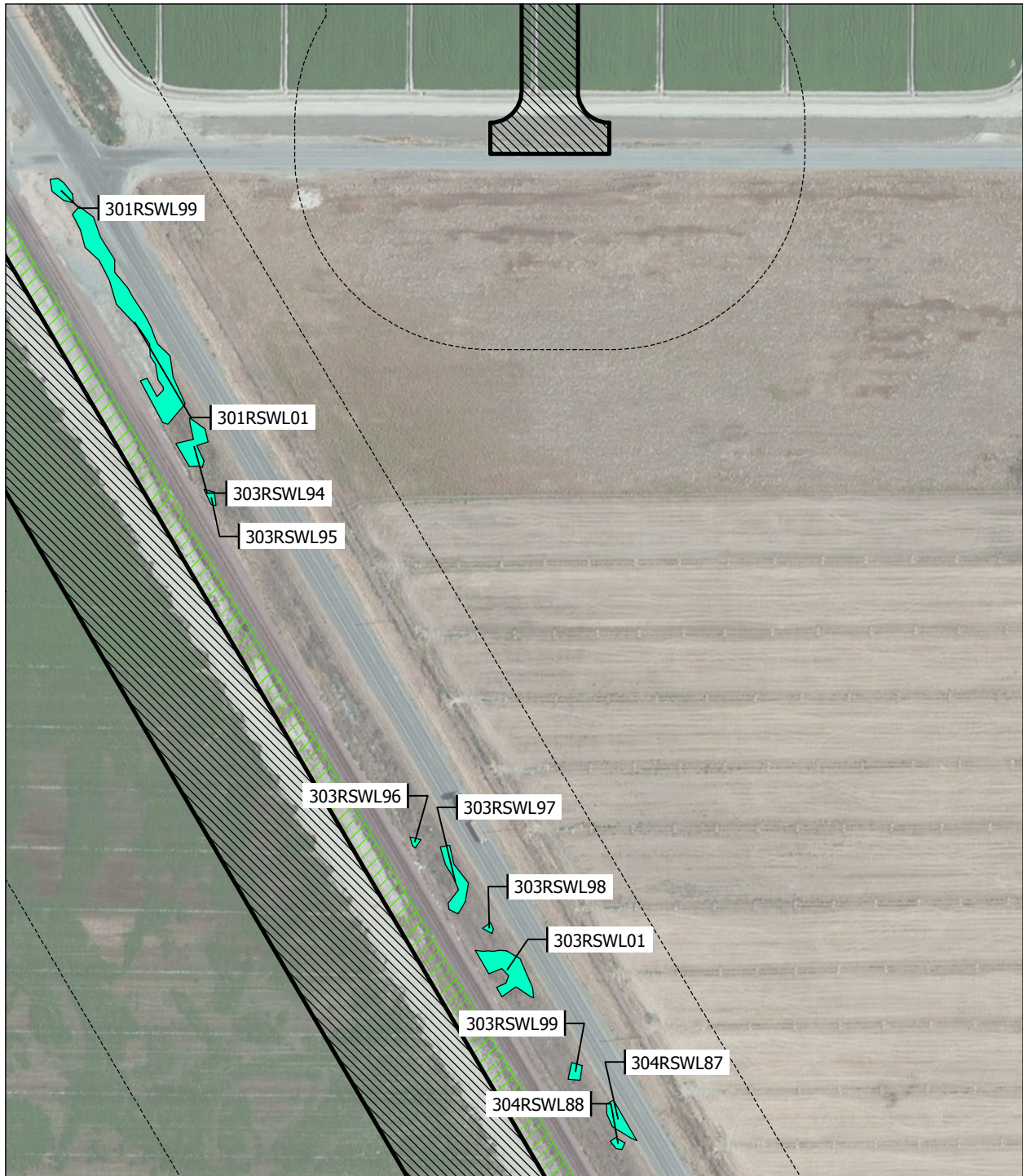
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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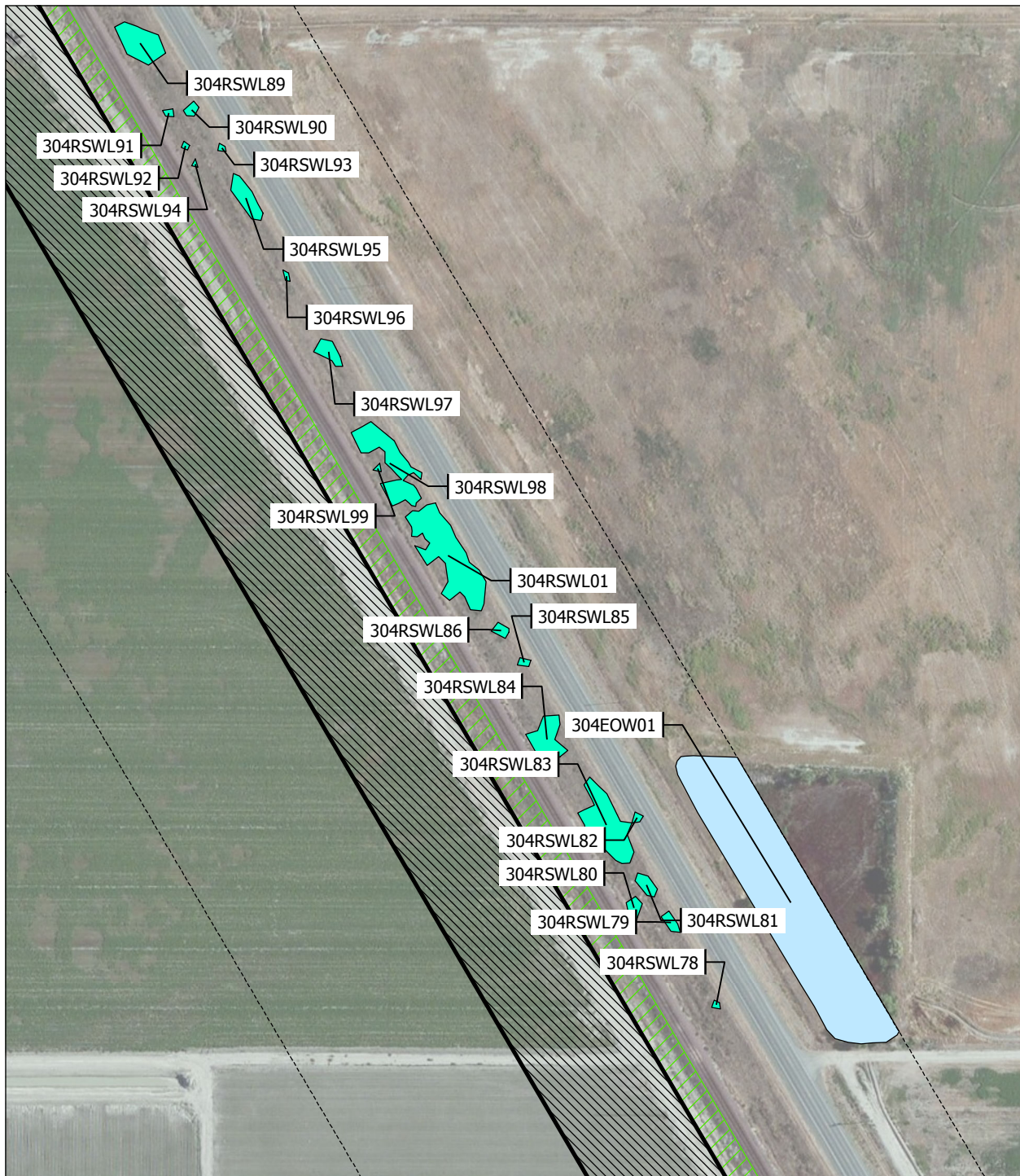
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD



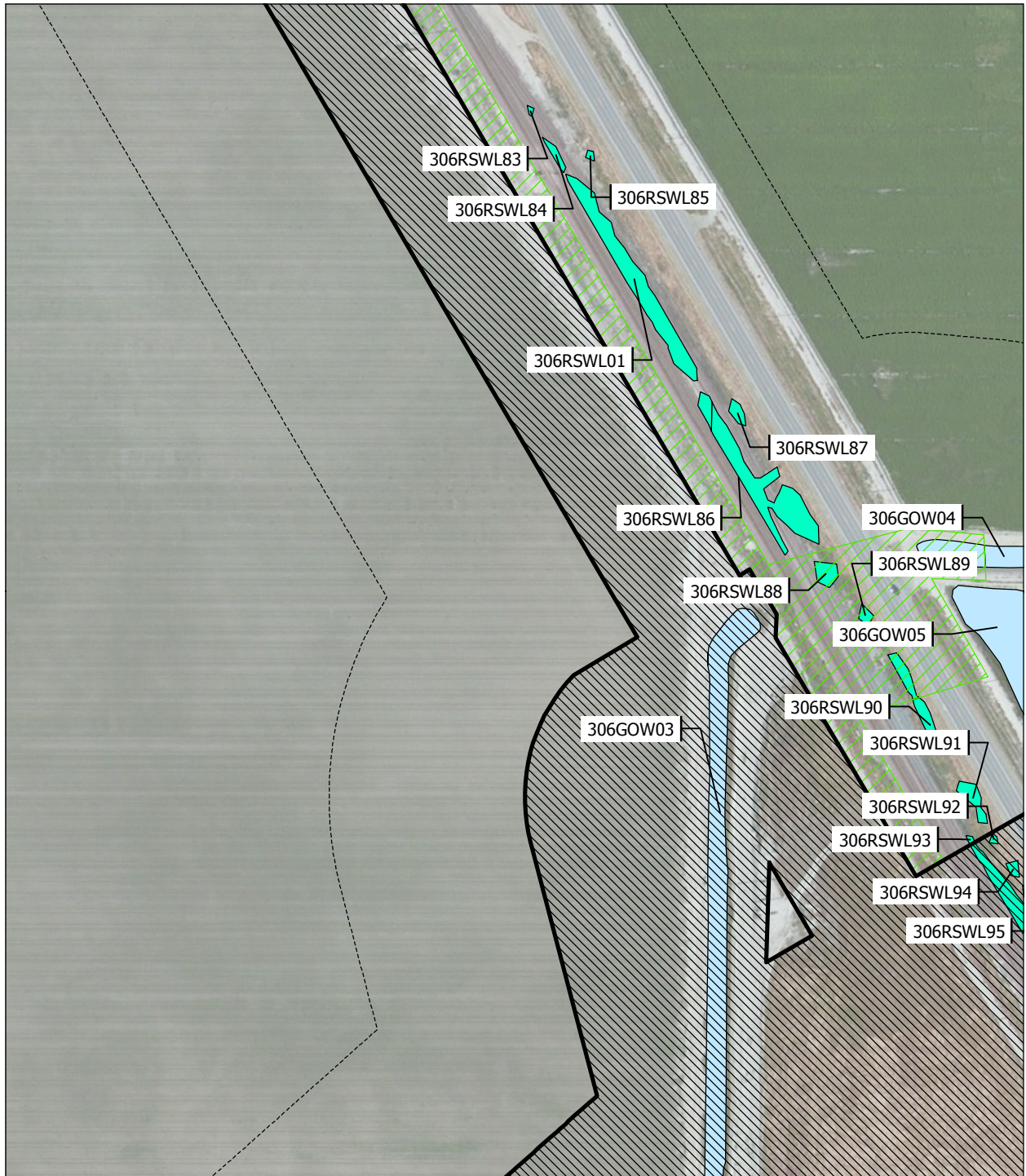
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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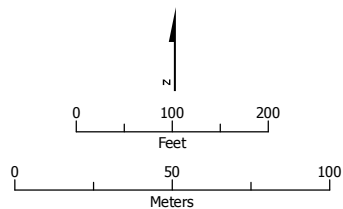


- | | |
|--------------------|------------------------------|
| 250-ft BSA | Canals/Ditches/Lacustrine |
| Impact Type | Wetlands (Seasonal/Emergent) |
| Direct - Permanent | Riparian |
| Direct - Temporary | Seasonal riverine |
| Temporary No Fill | Vernal Pools and Swales |



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



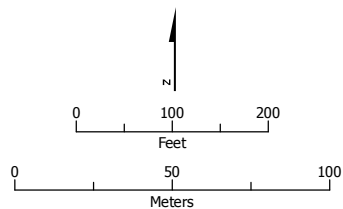
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

Direct - Permanent

Direct - Temporary

Temporary No Fill

Canals/Ditches/Lacustrine

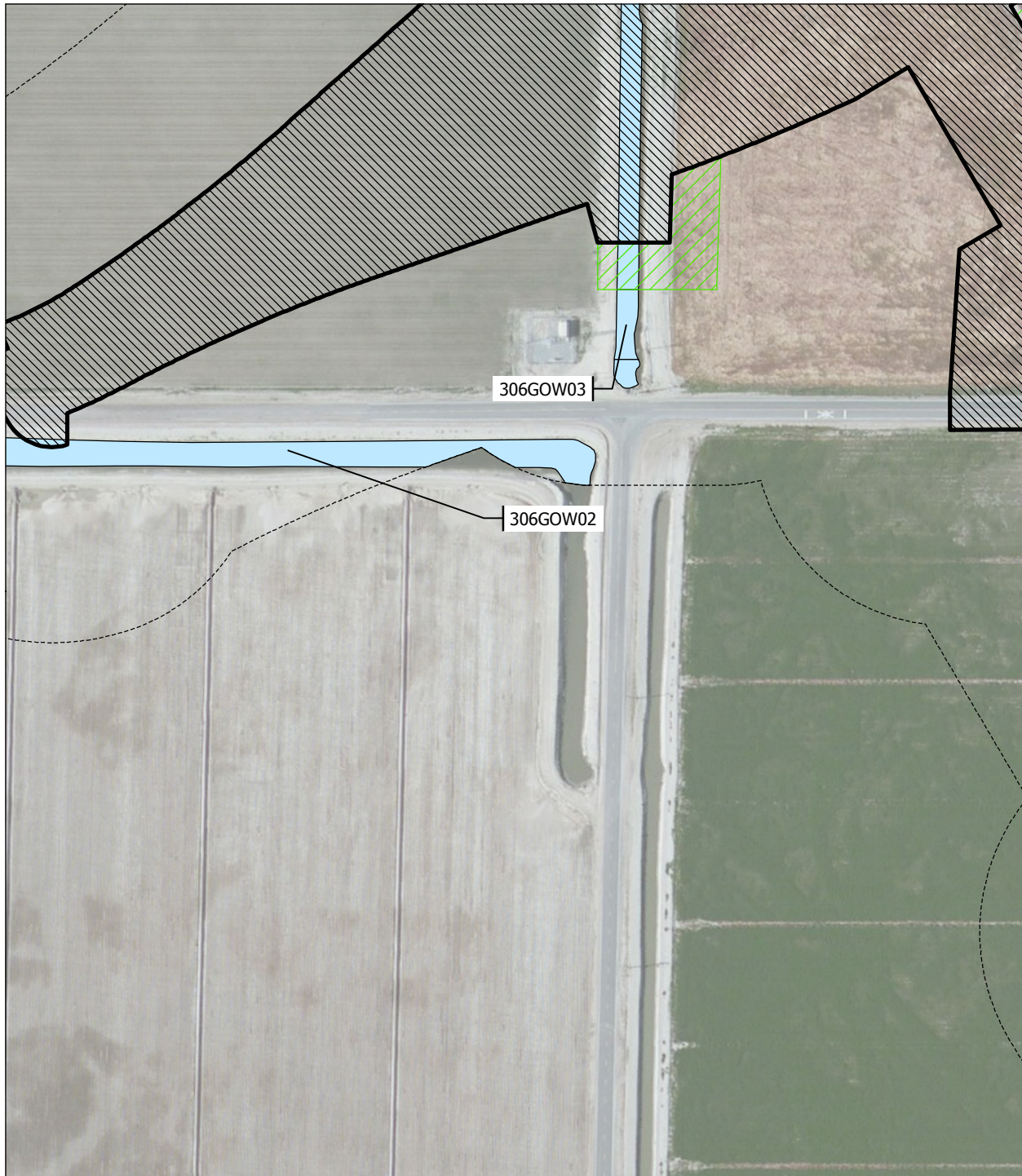
Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

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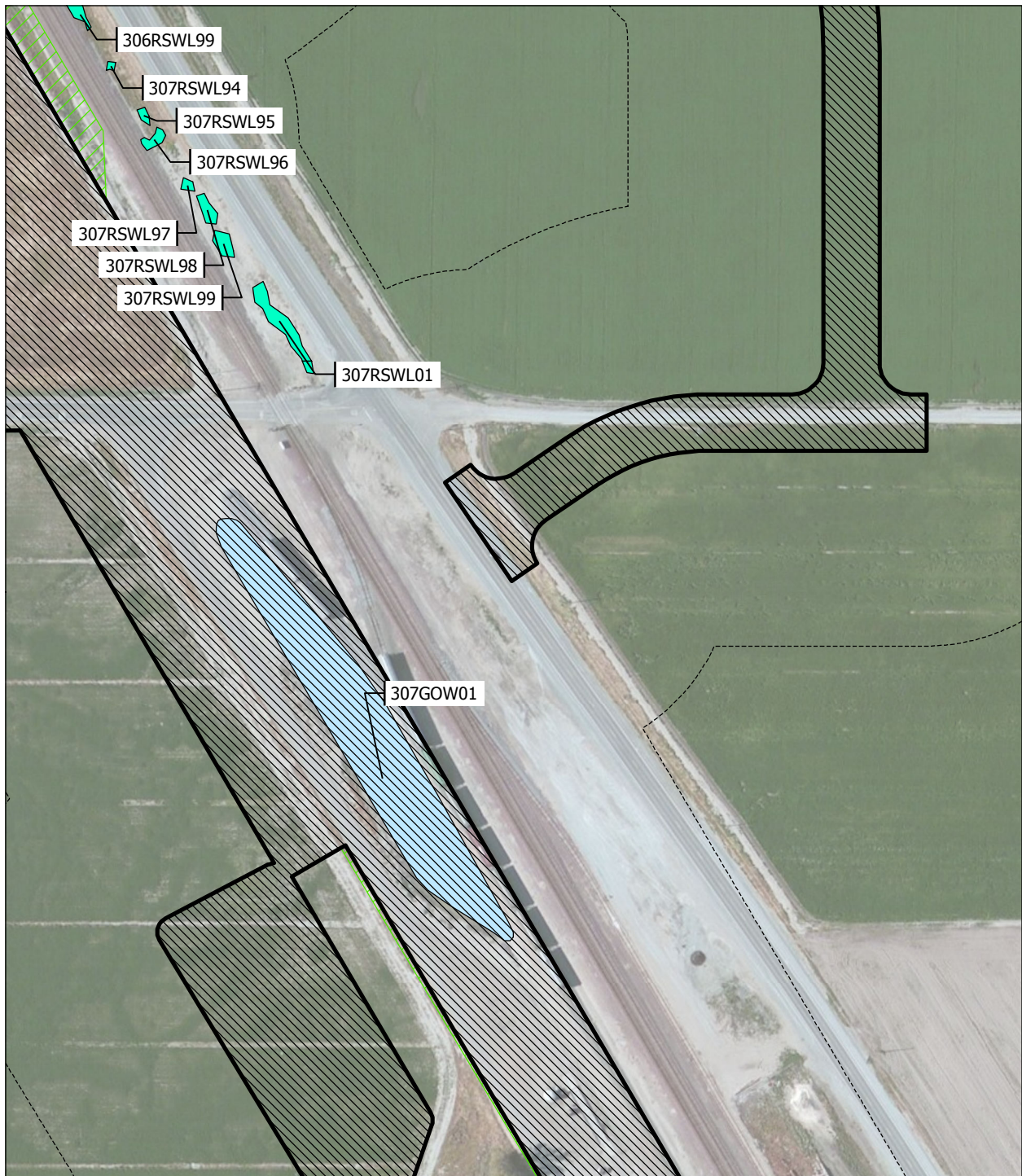
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Image source: ESRI

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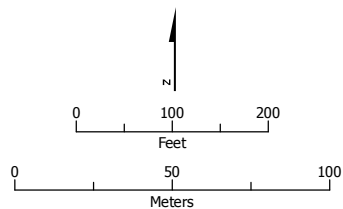
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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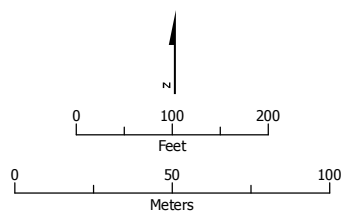
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

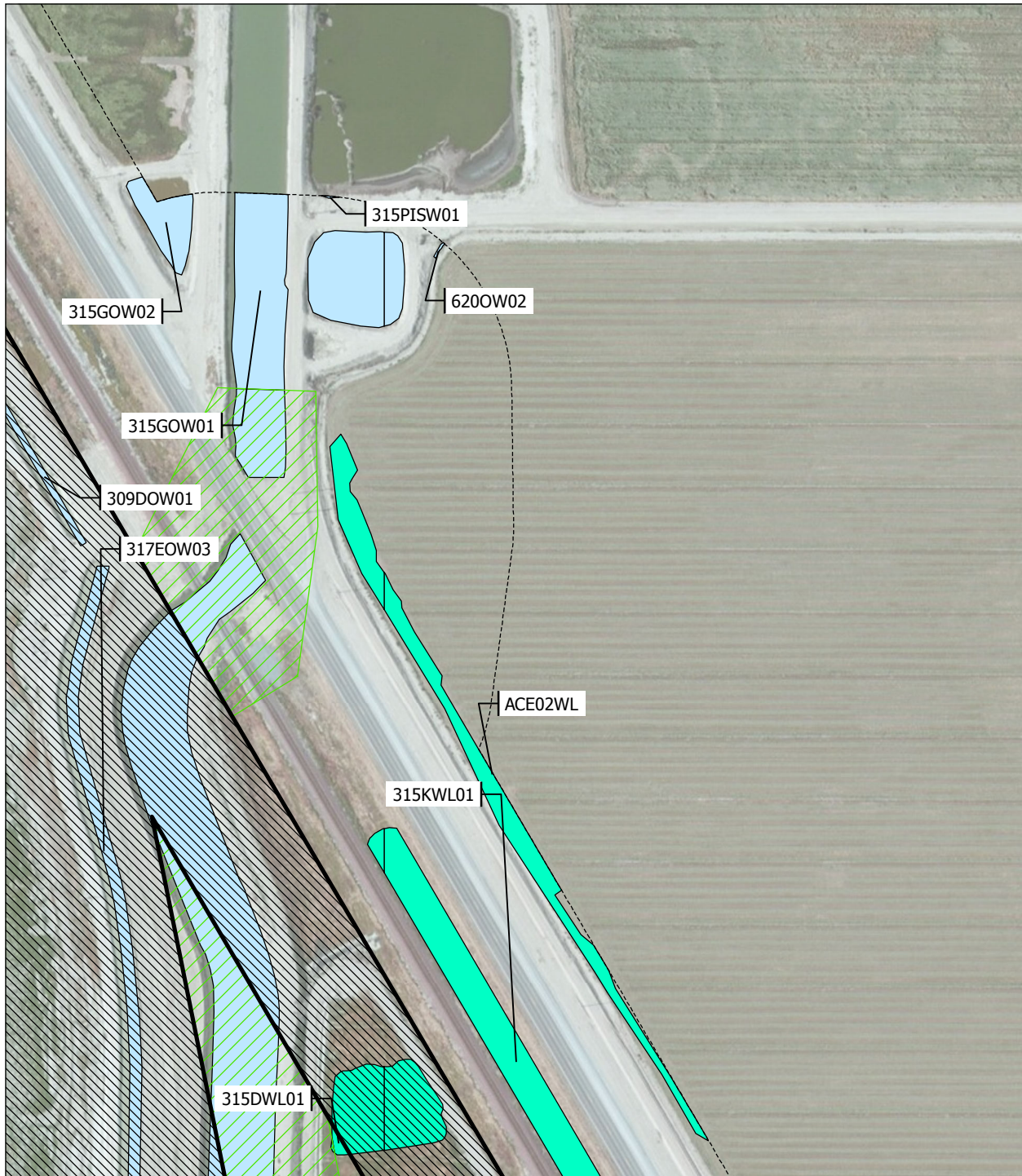
Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales



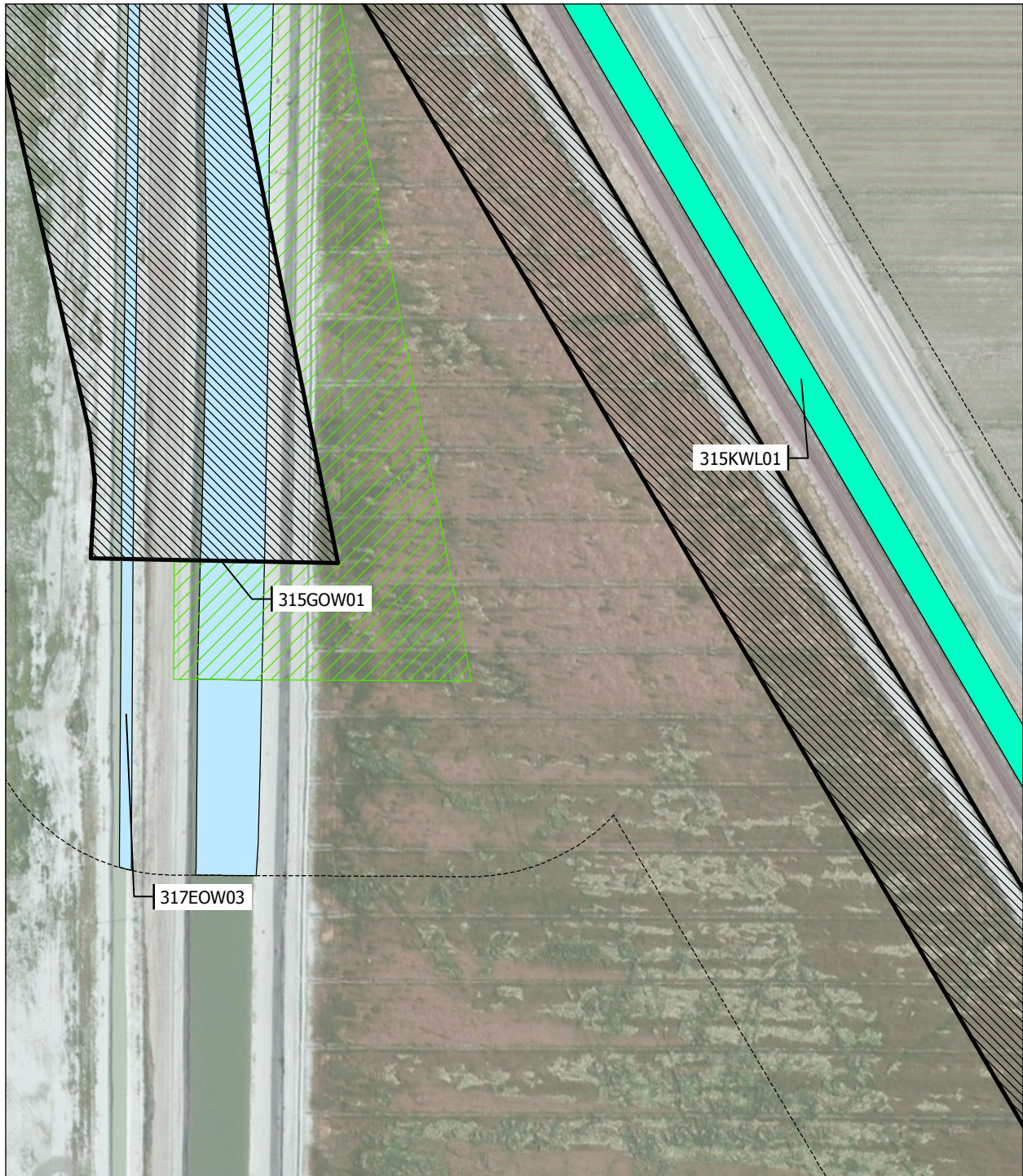
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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	250-ft BSA		Canals/Ditches/Lacustrine
	Direct - Permanent		Wetlands (Seasonal/Emergent)
	Direct - Temporary		Riparian
	Temporary No Fill		Seasonal riverine
			Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales

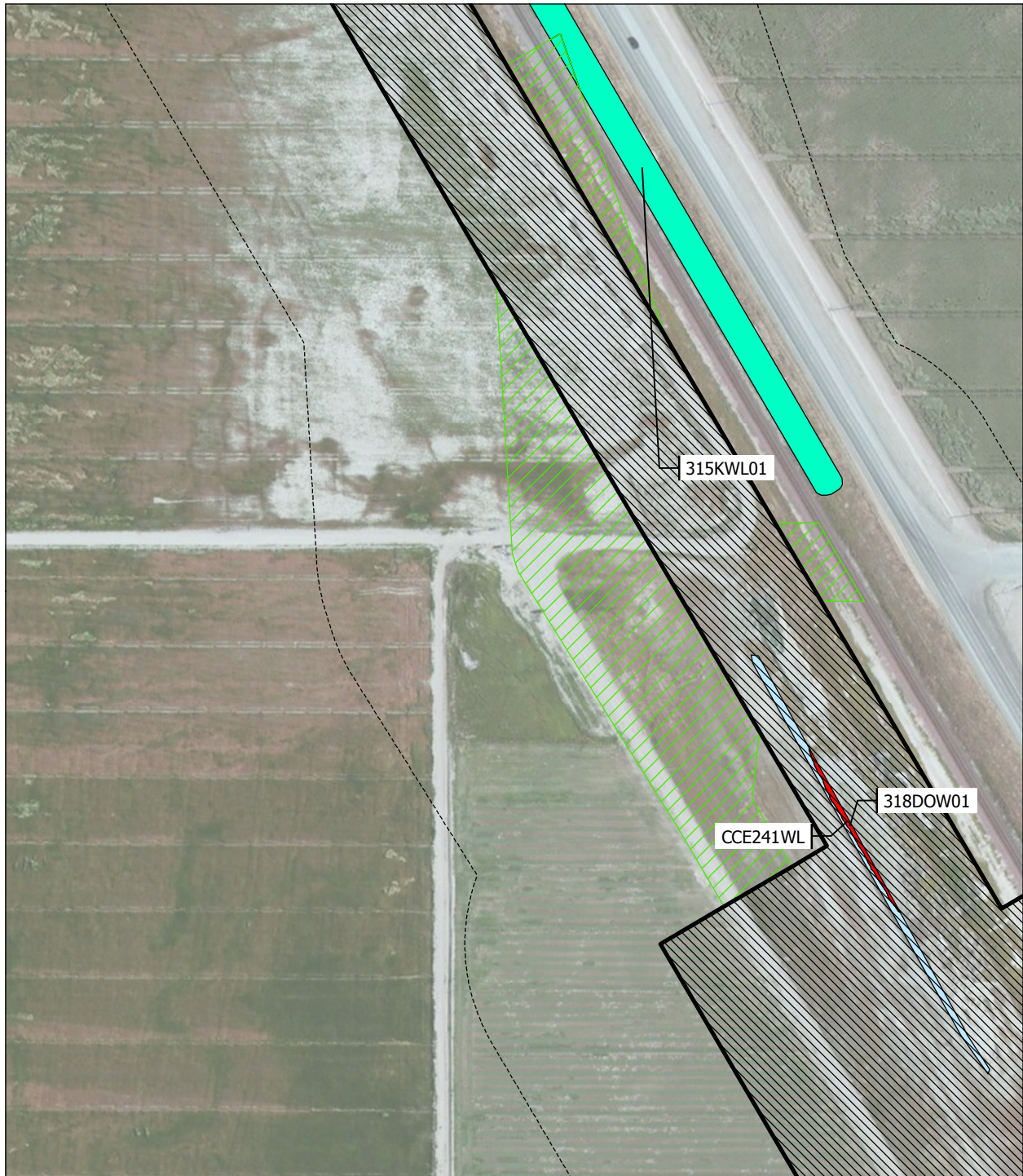


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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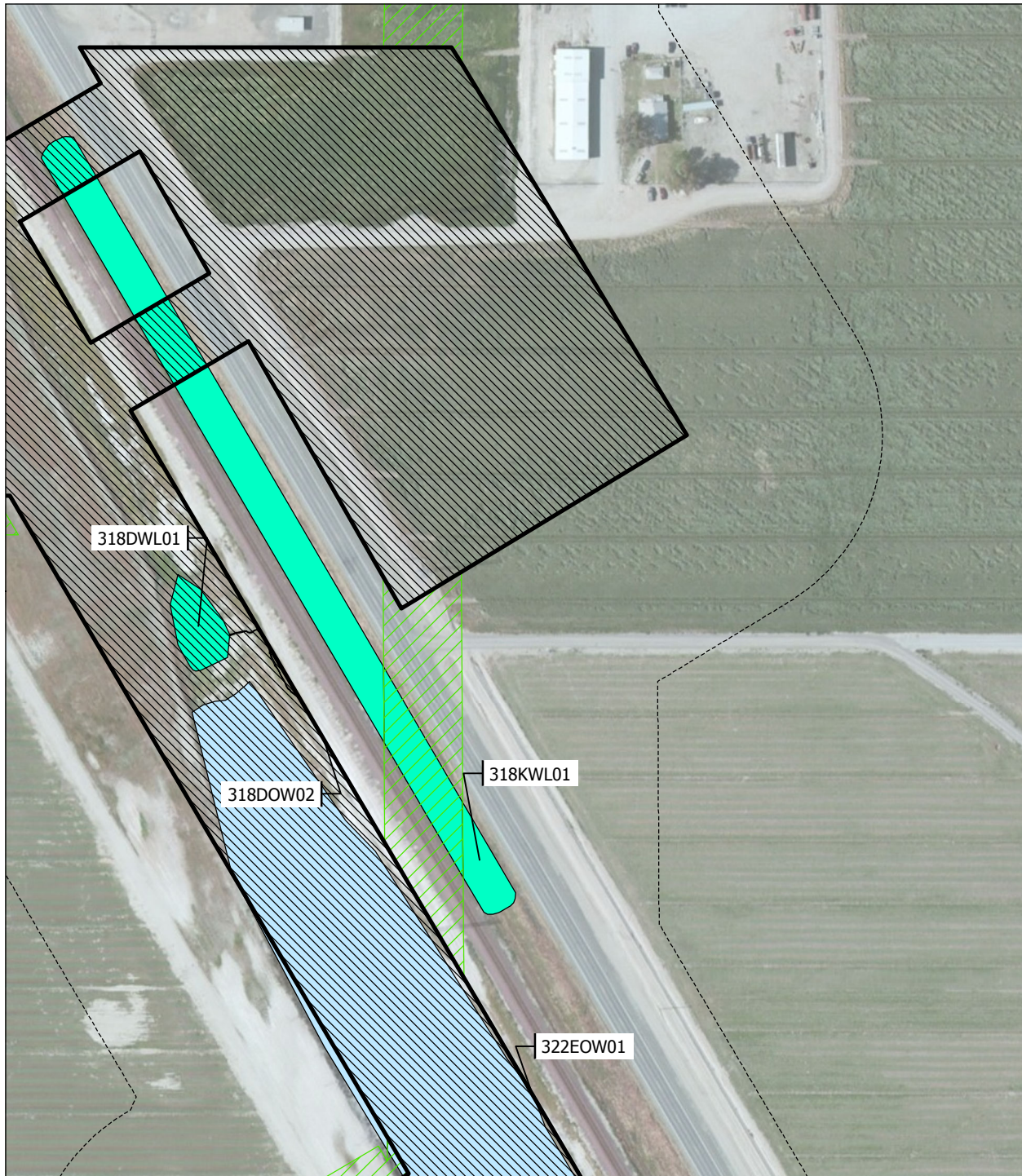


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



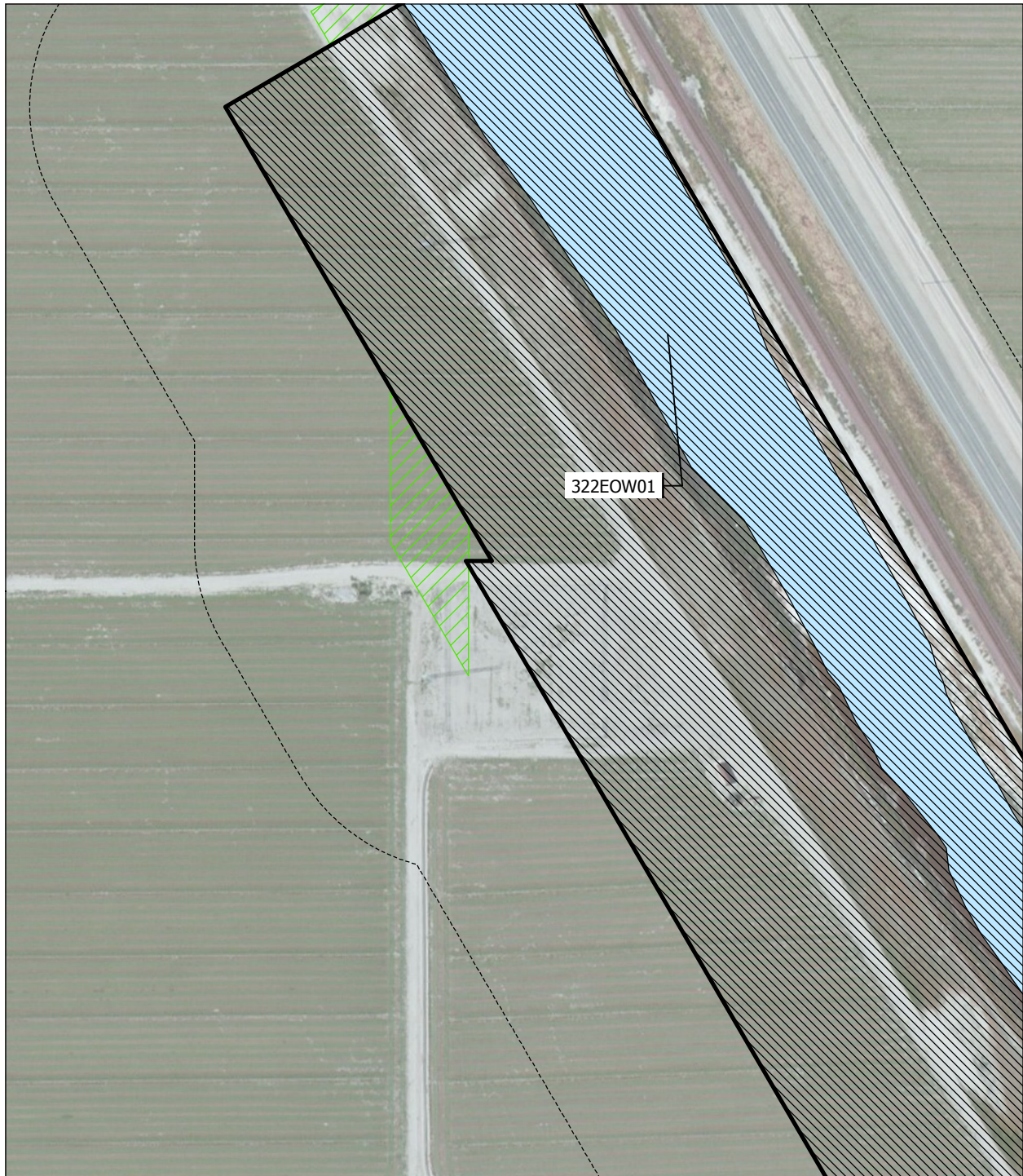
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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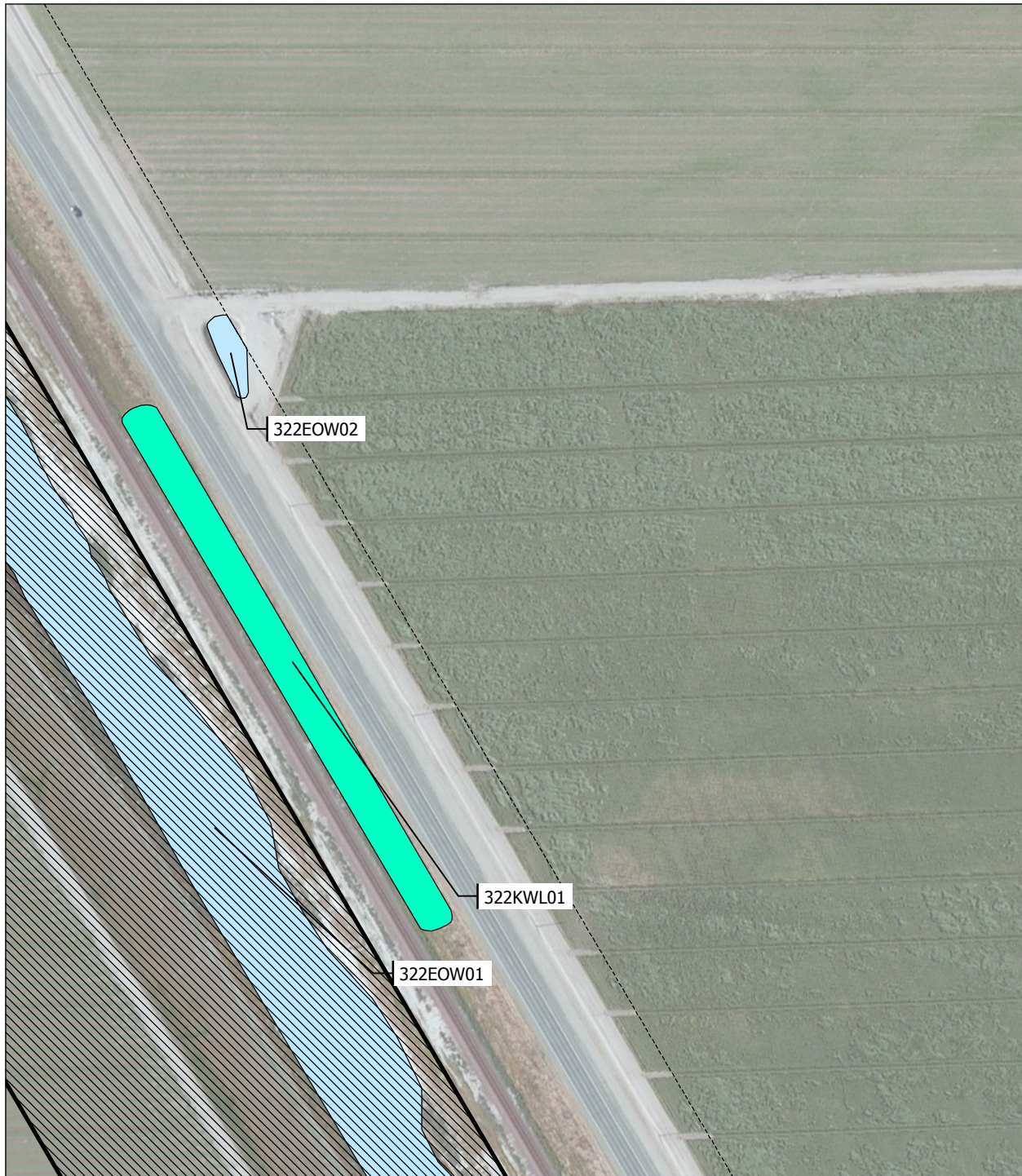


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

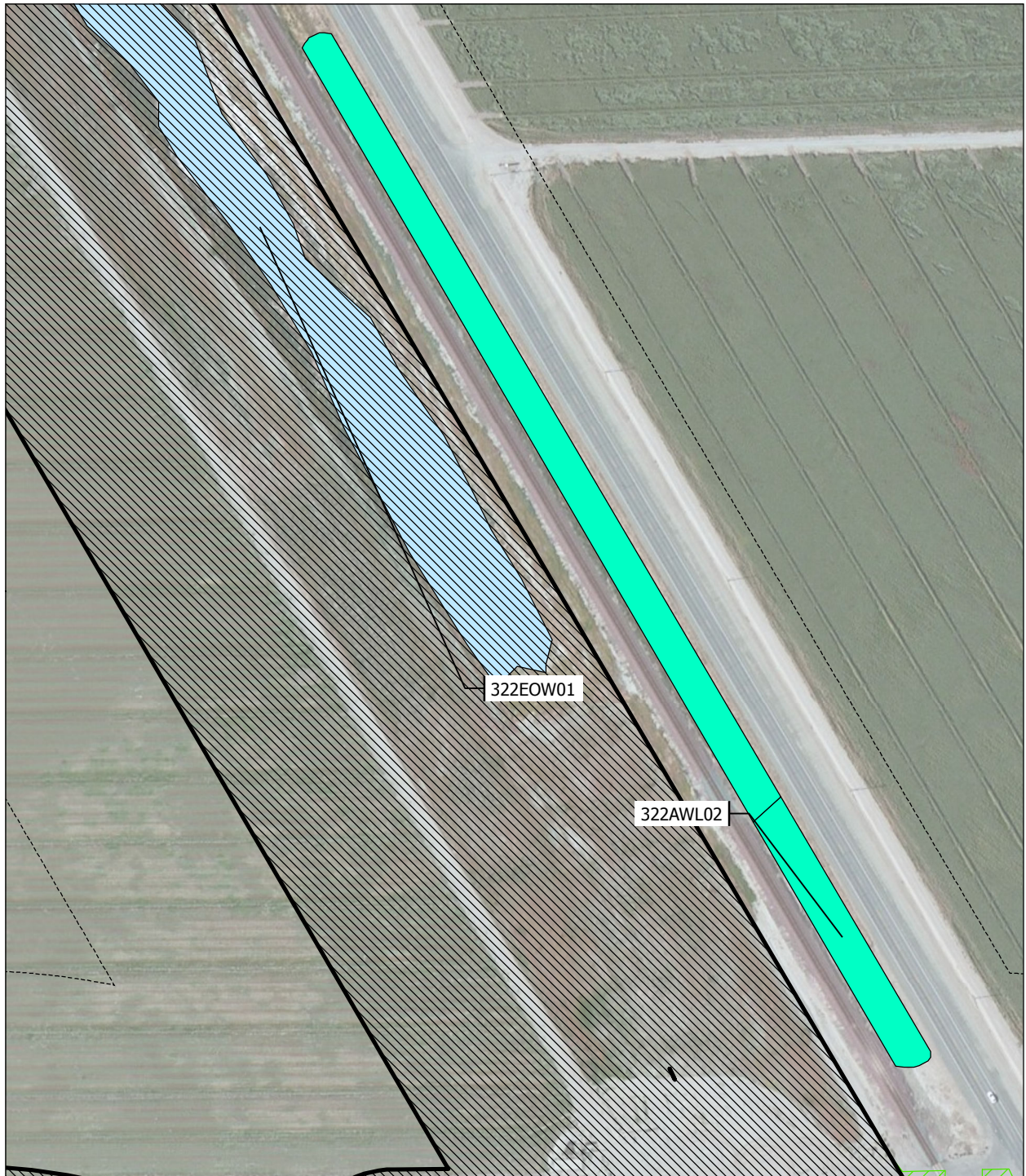


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Image source: ESRI

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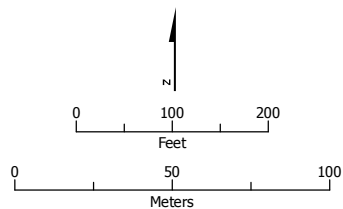


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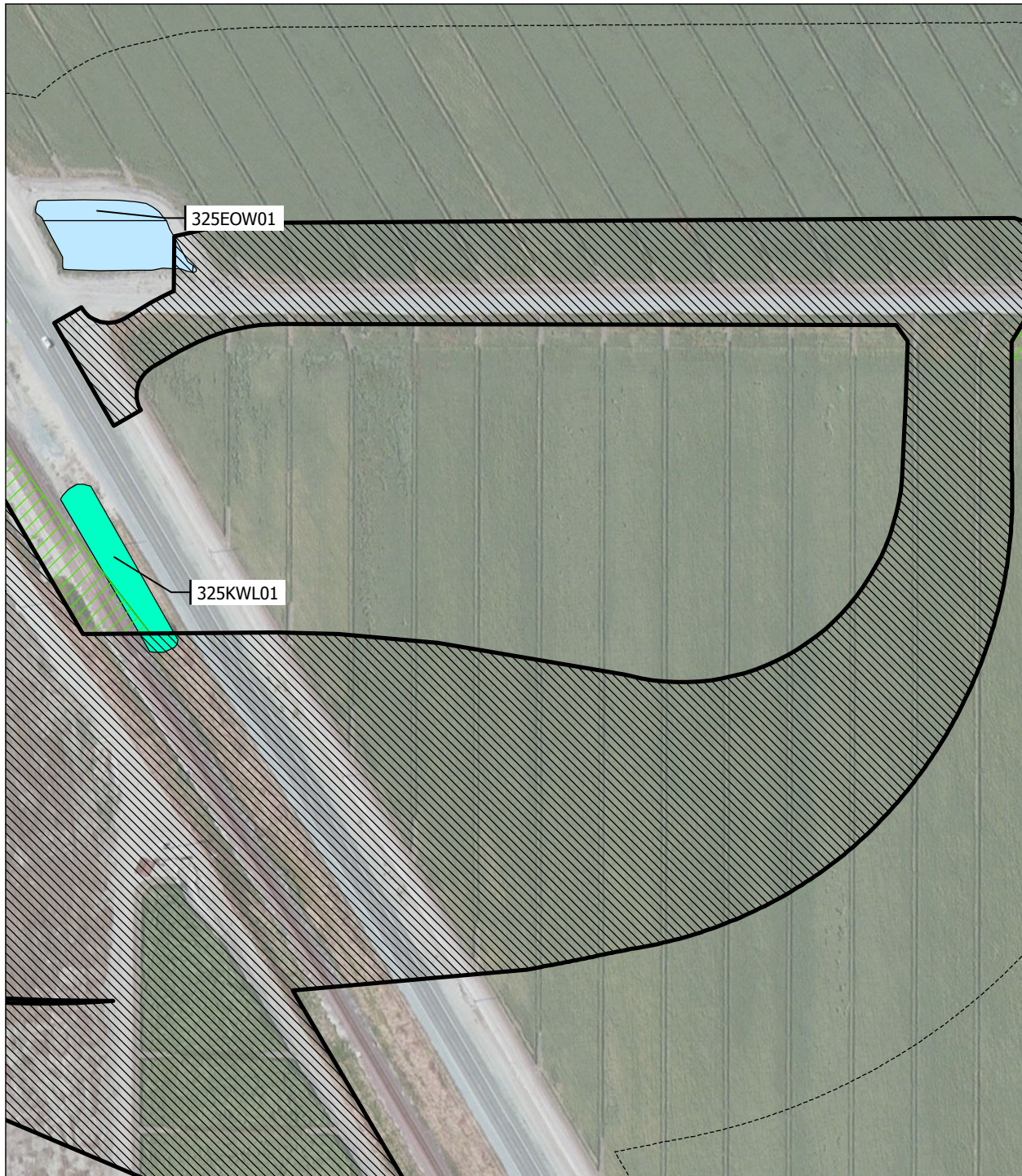


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

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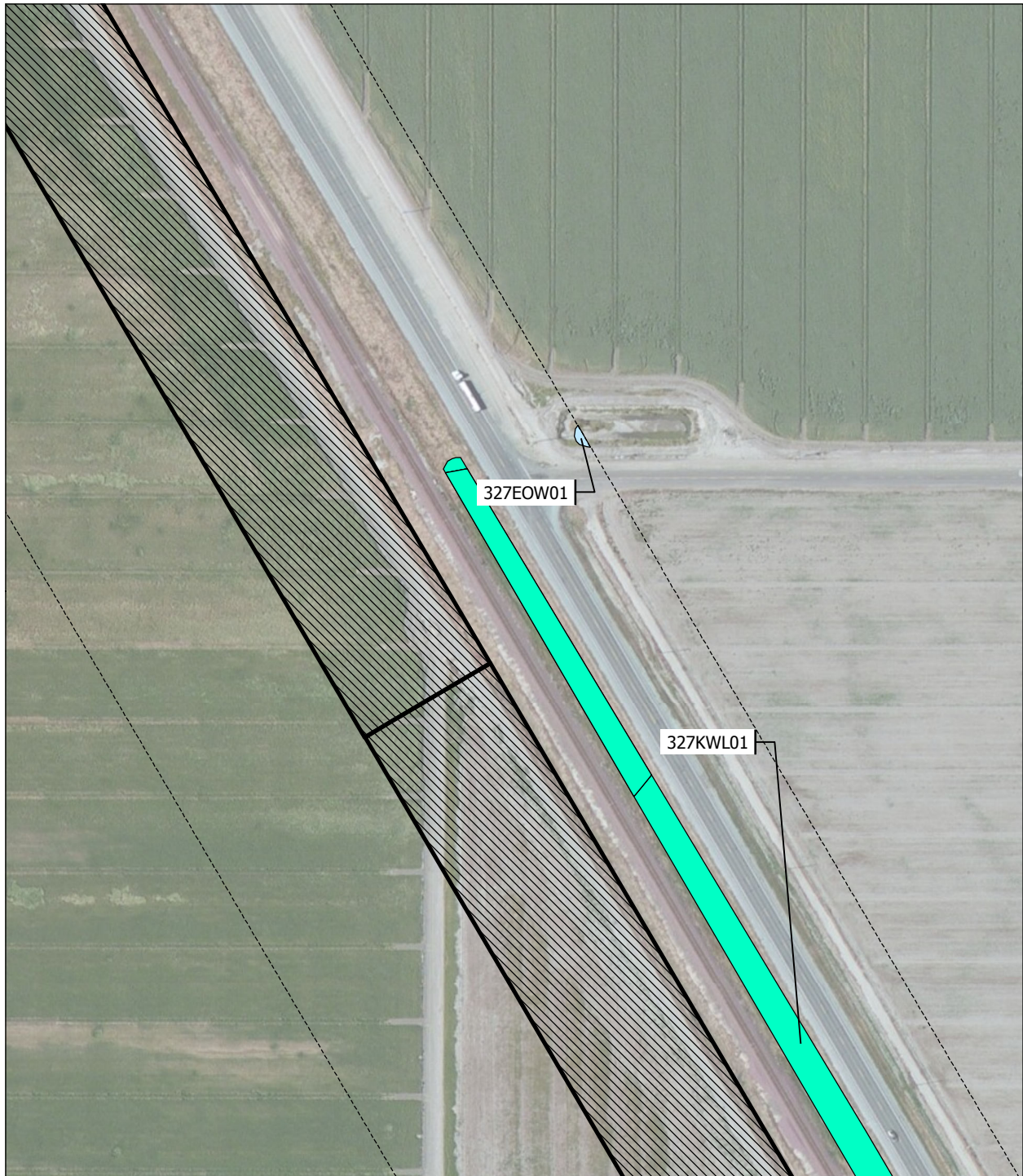
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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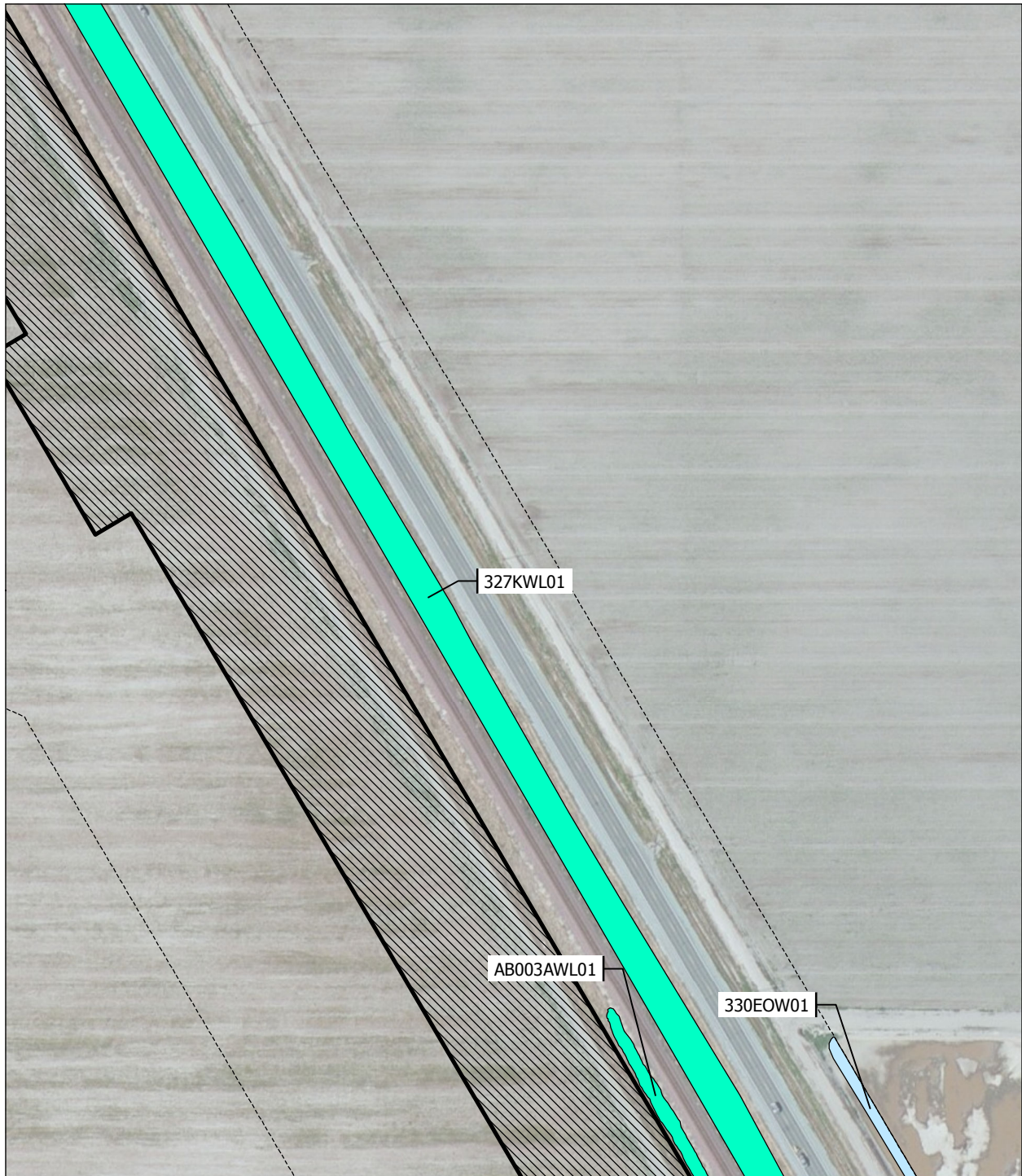
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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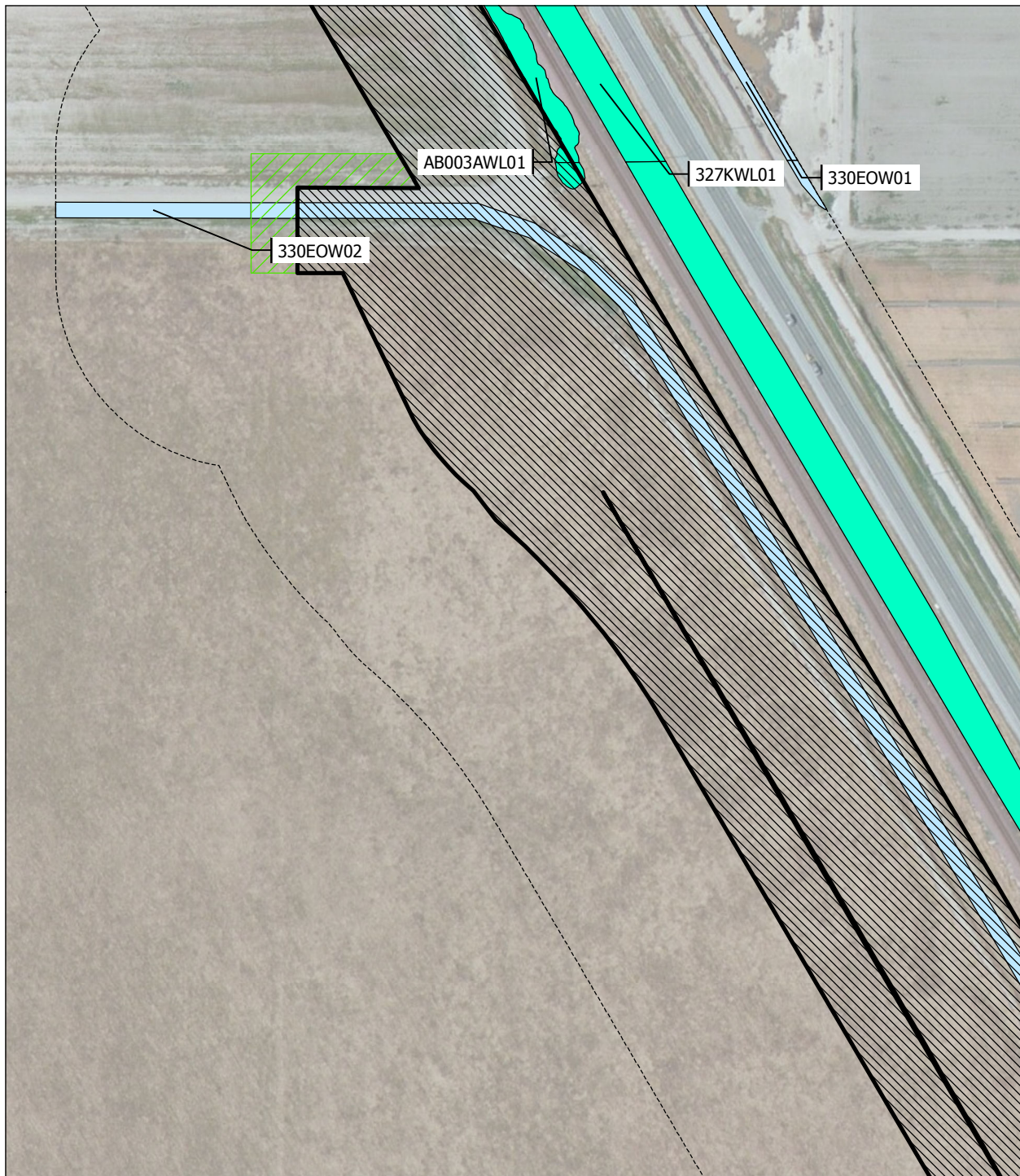


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

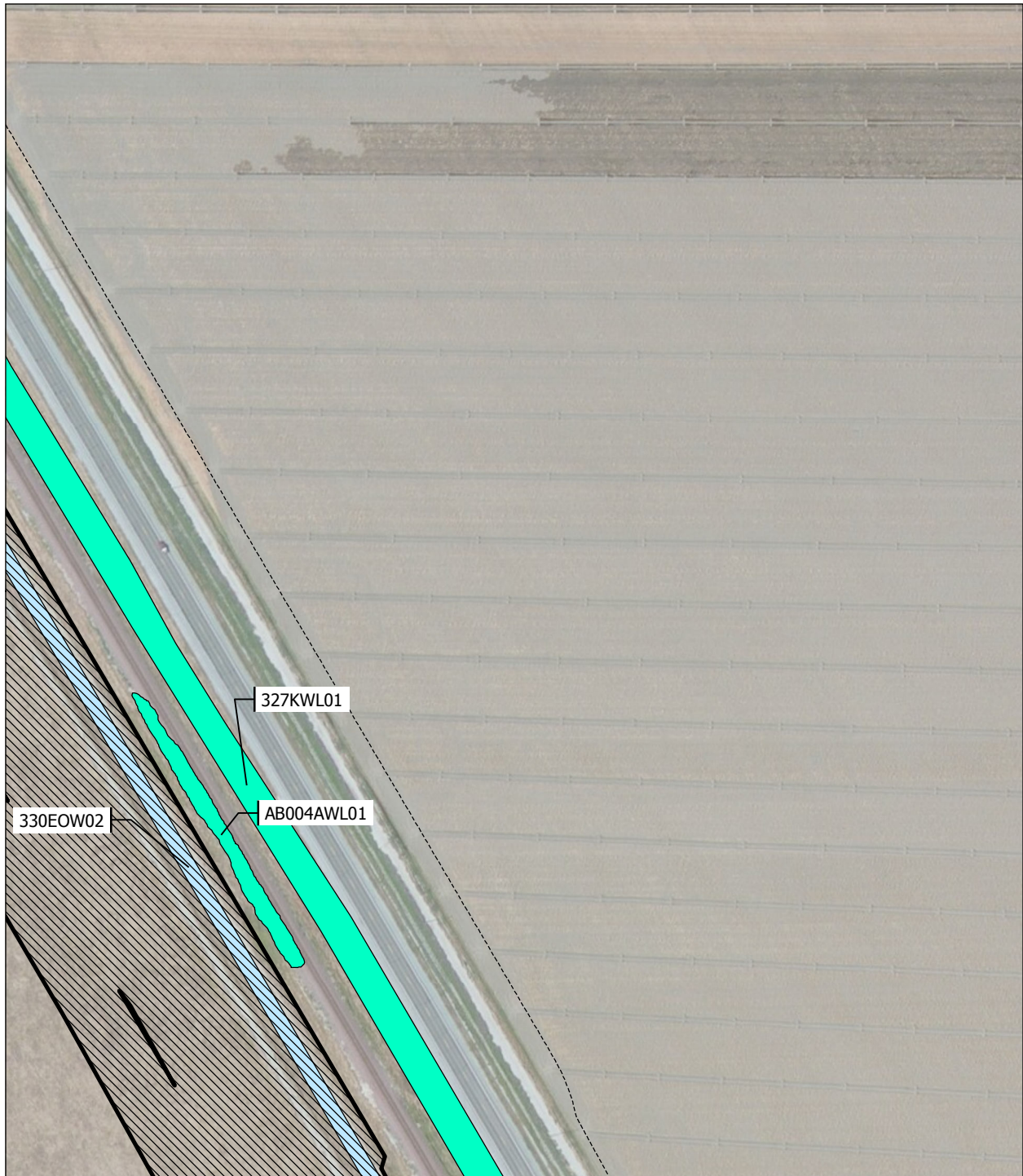


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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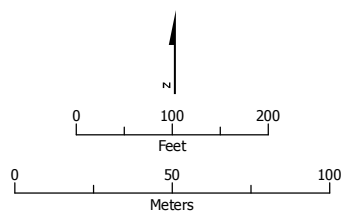


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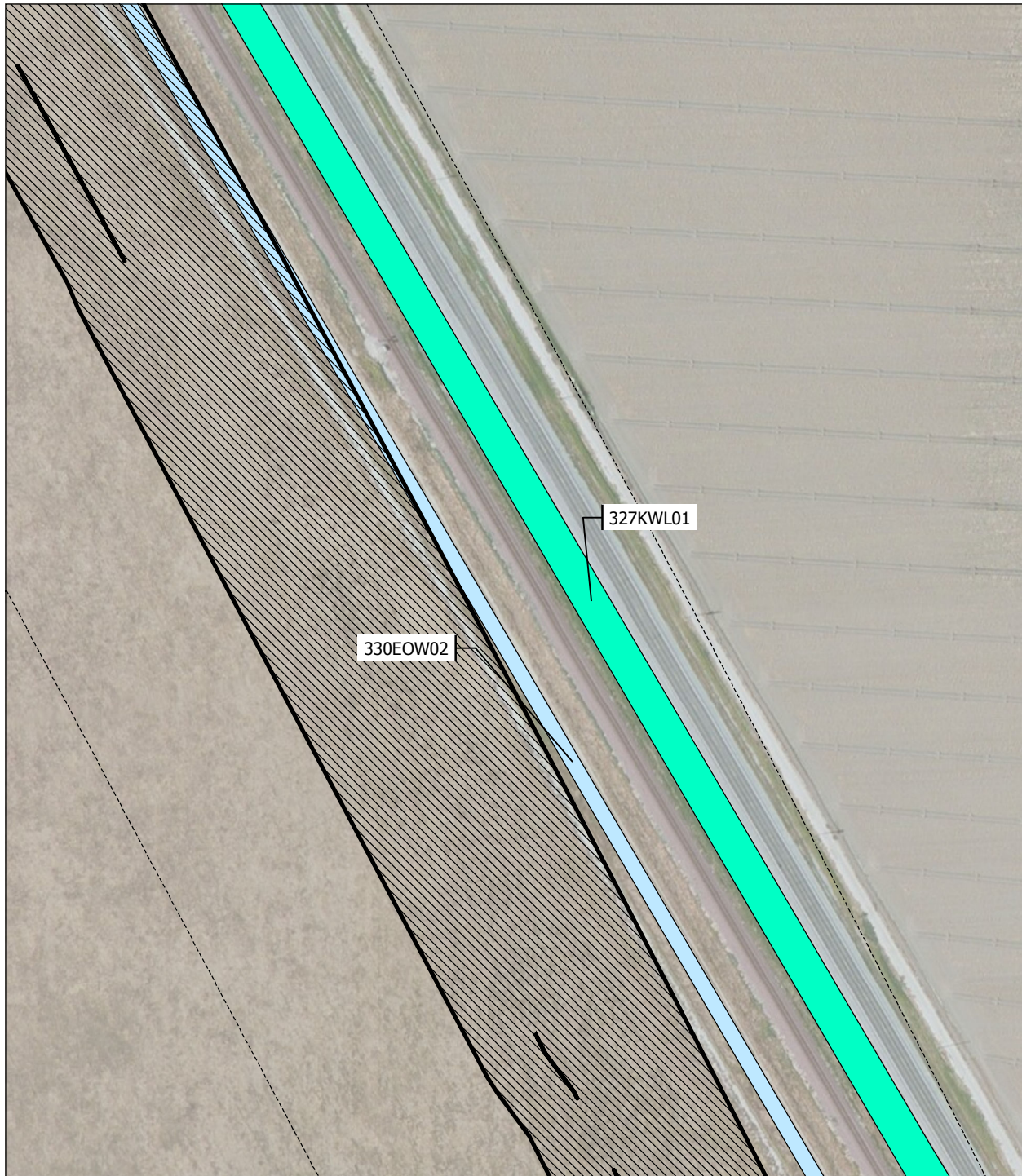


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



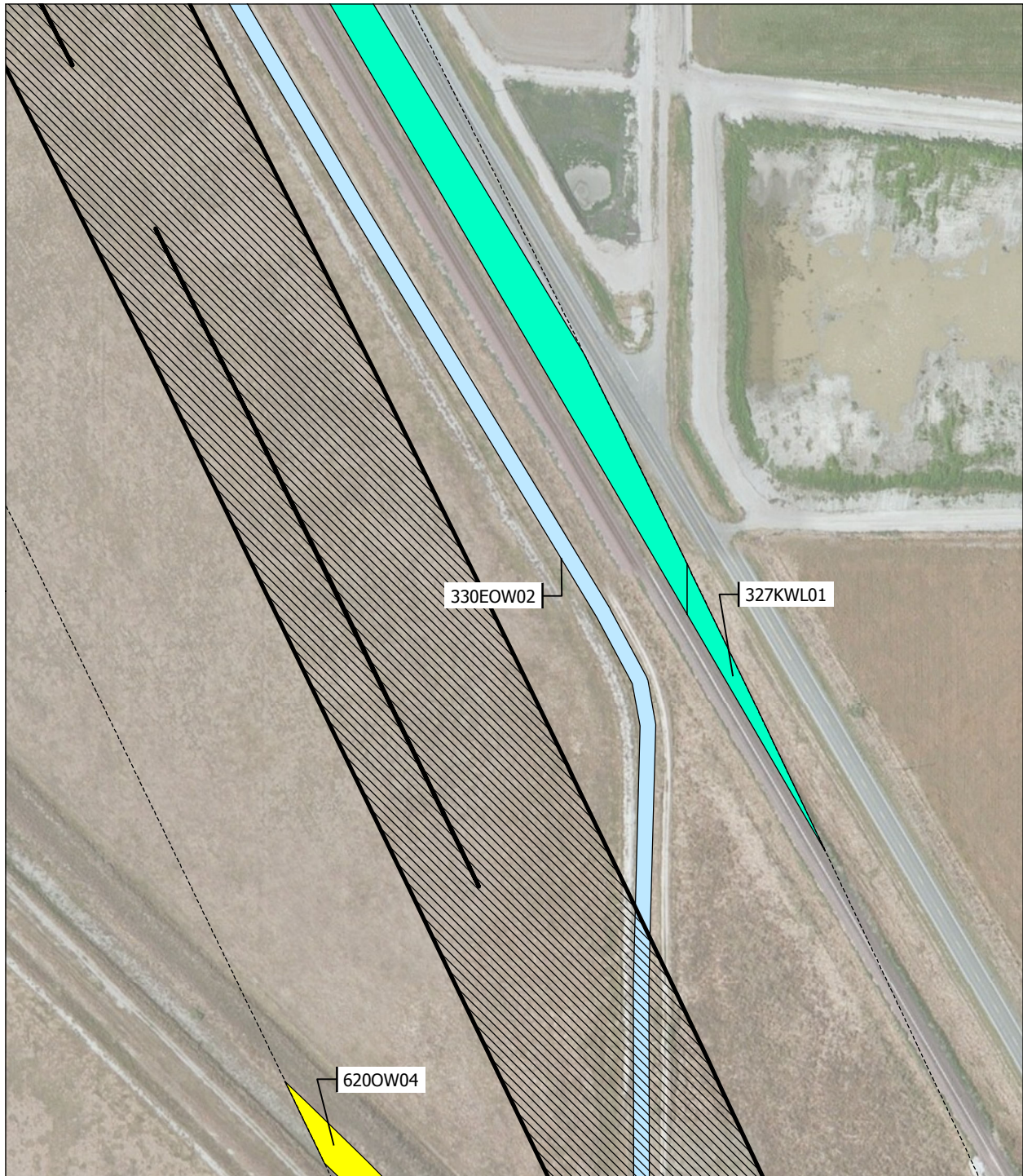
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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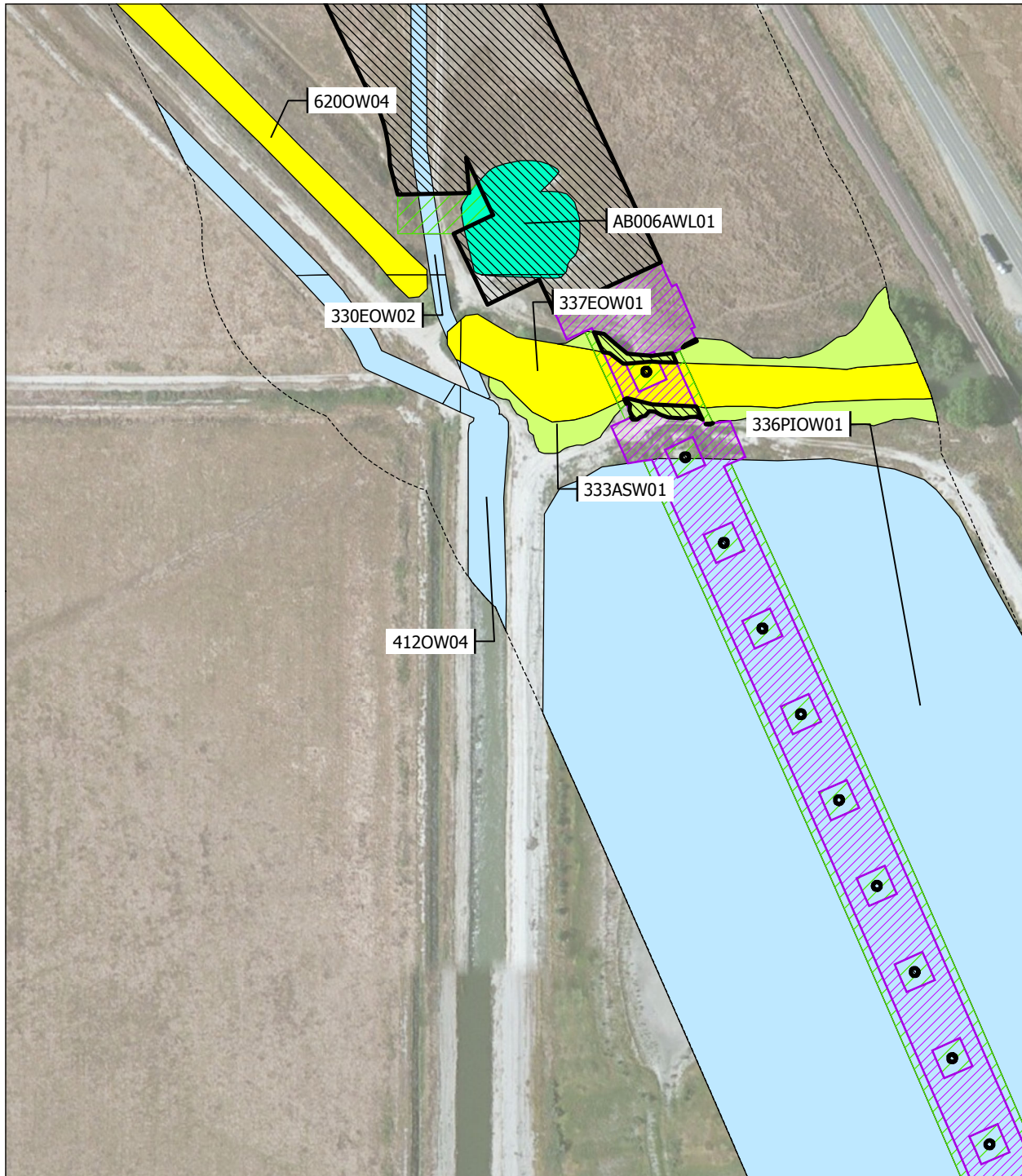


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

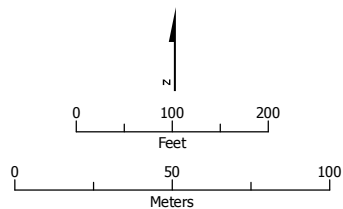


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

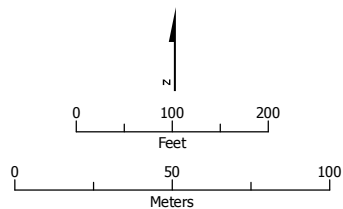
Seasonal riverine

Vernal Pools and Swales



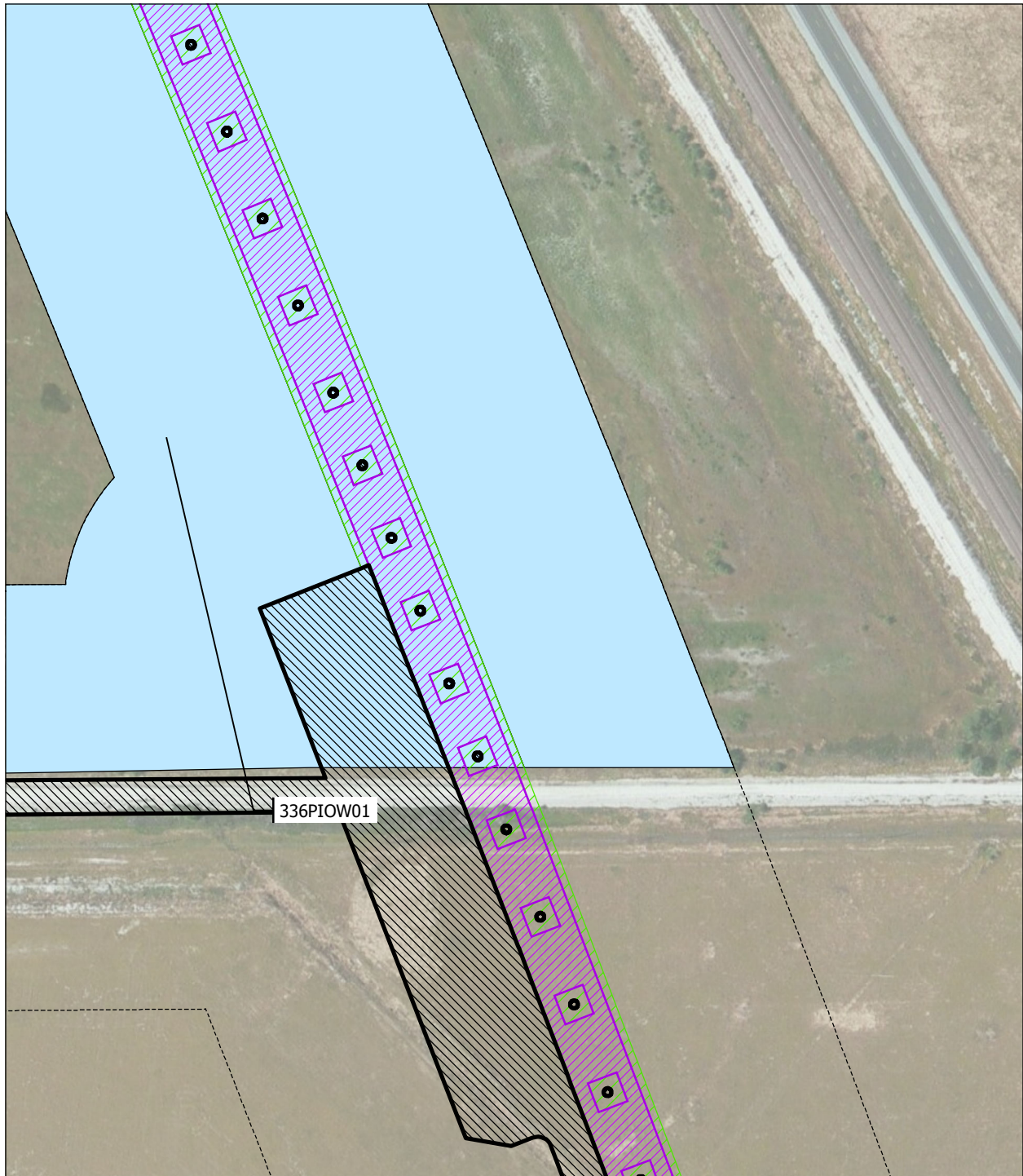
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

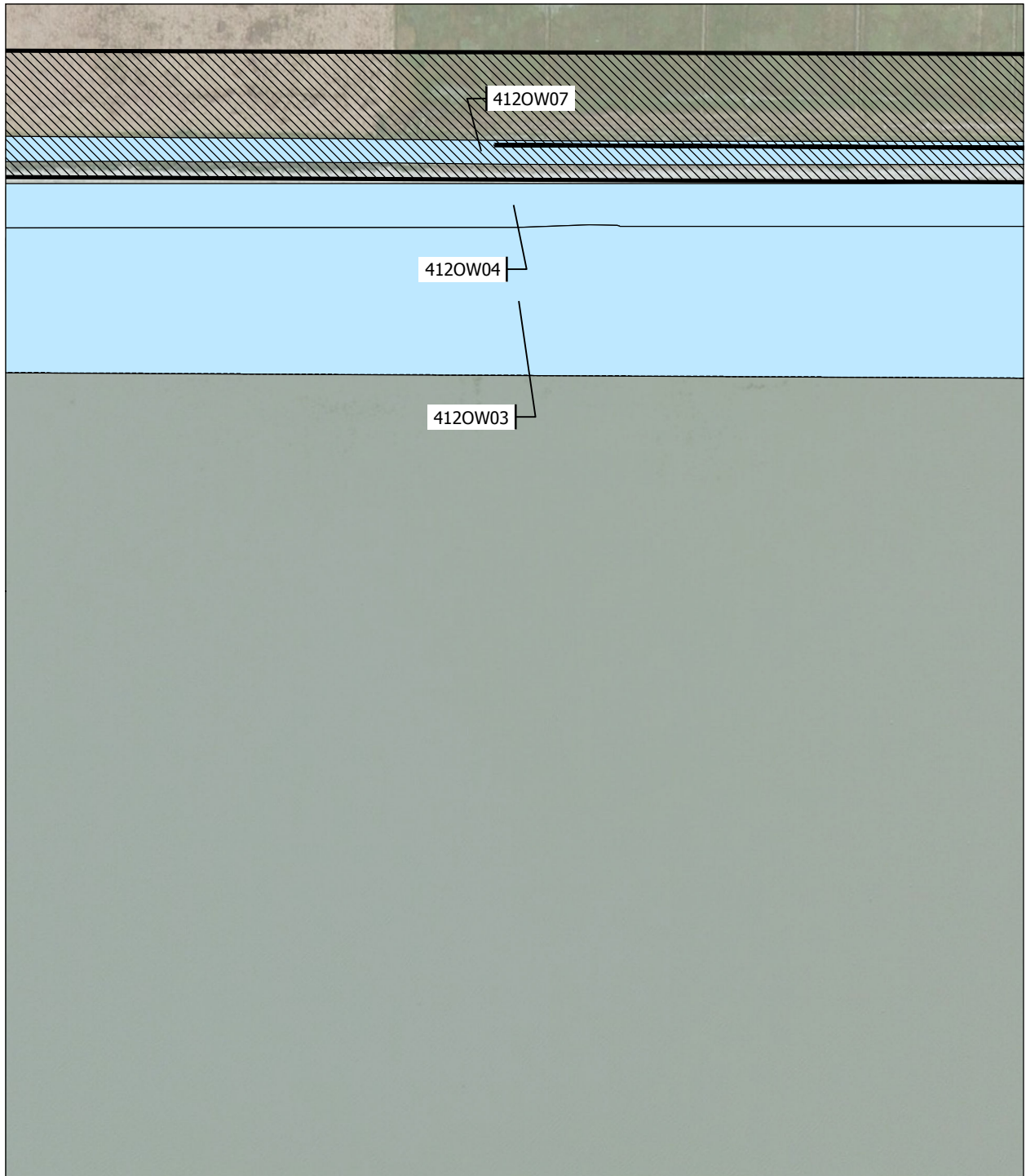


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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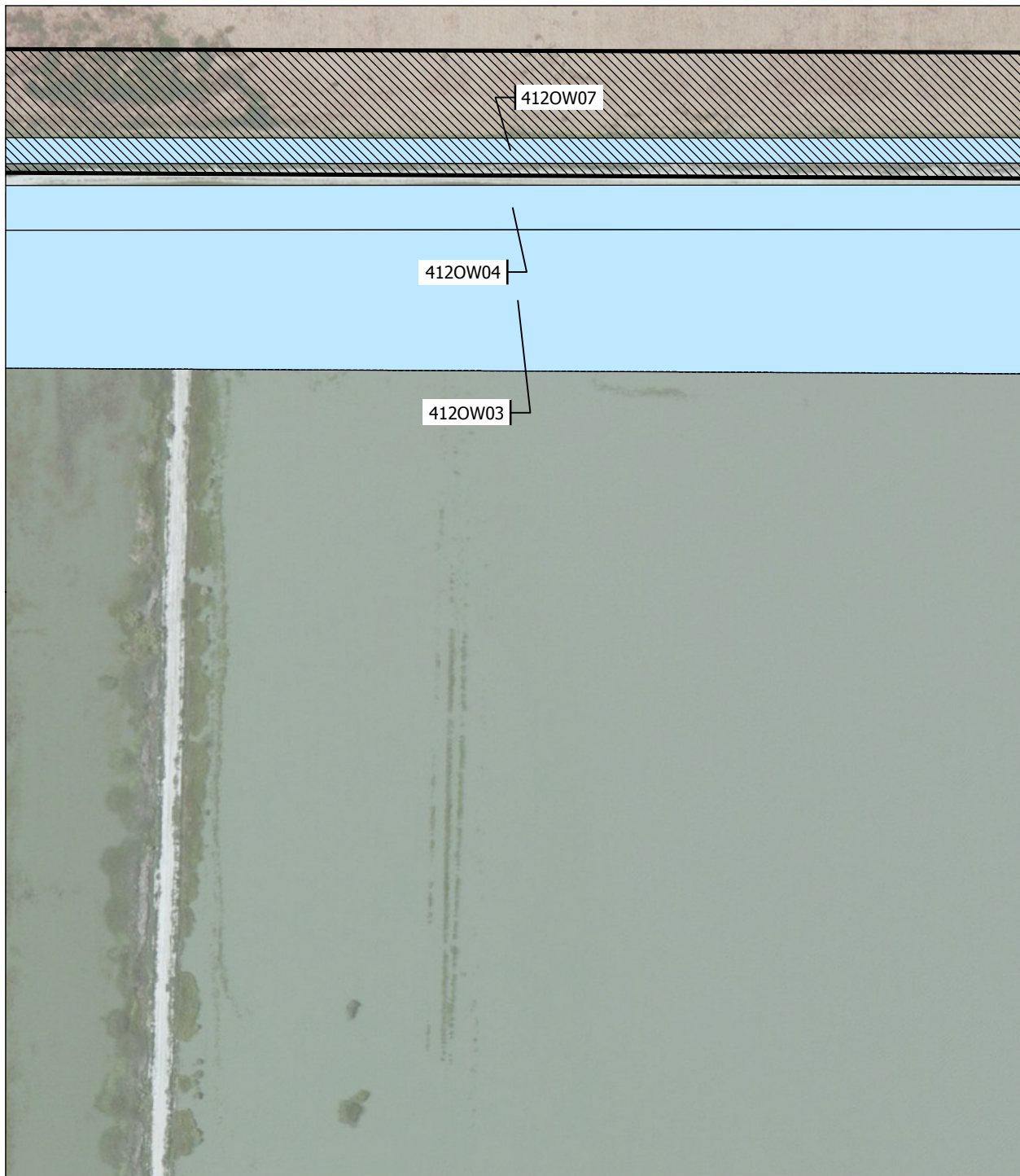


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

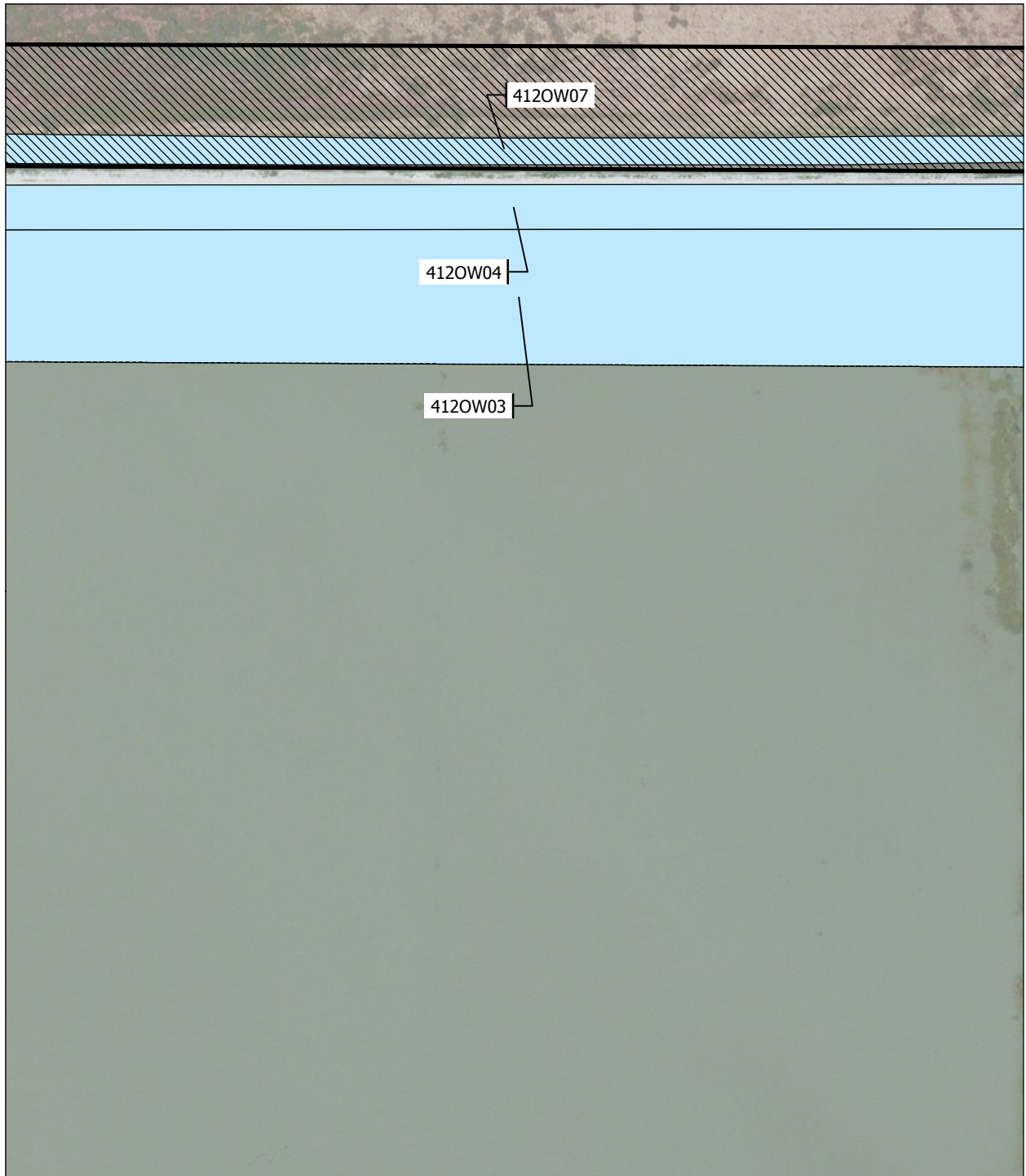


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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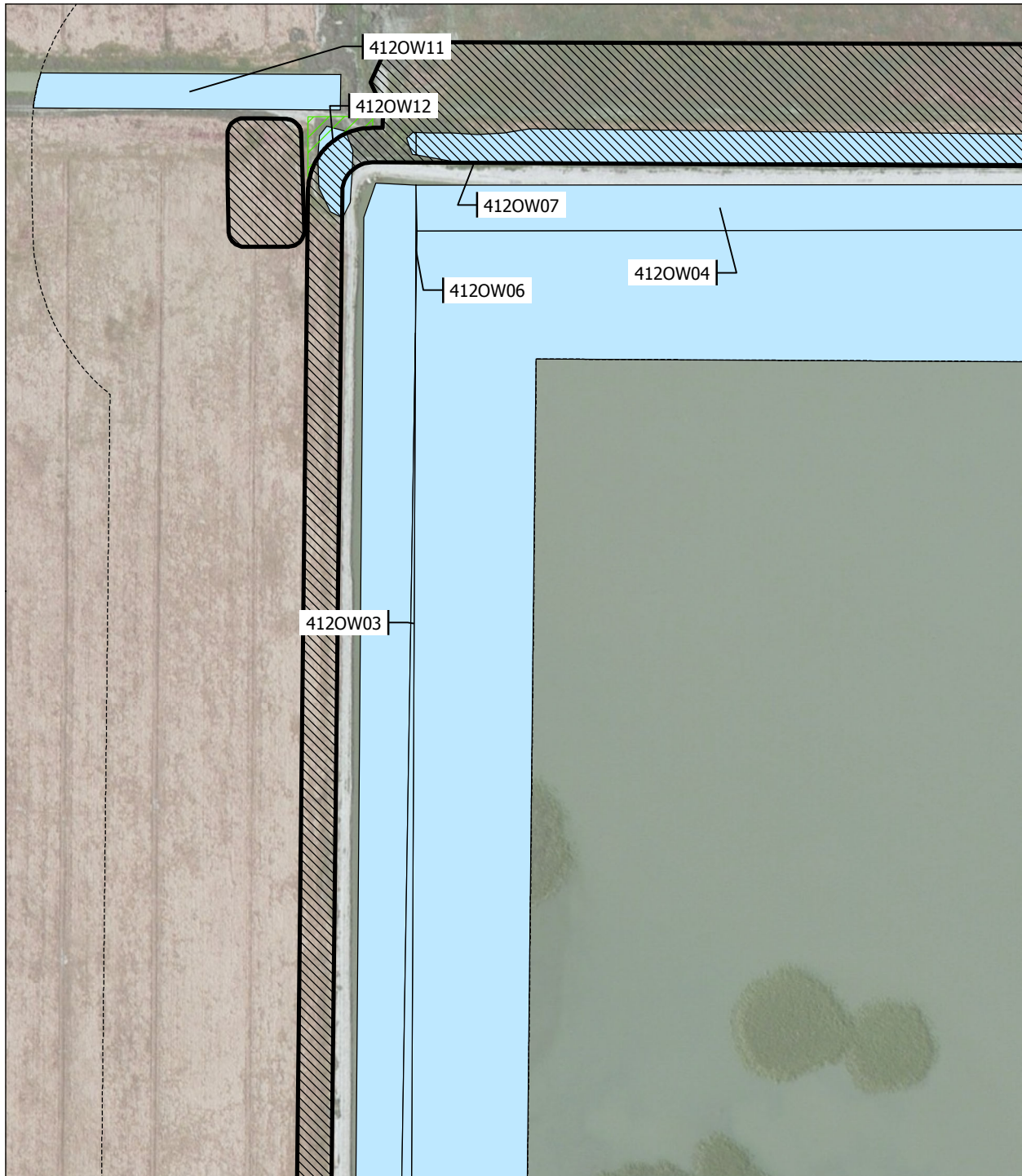


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

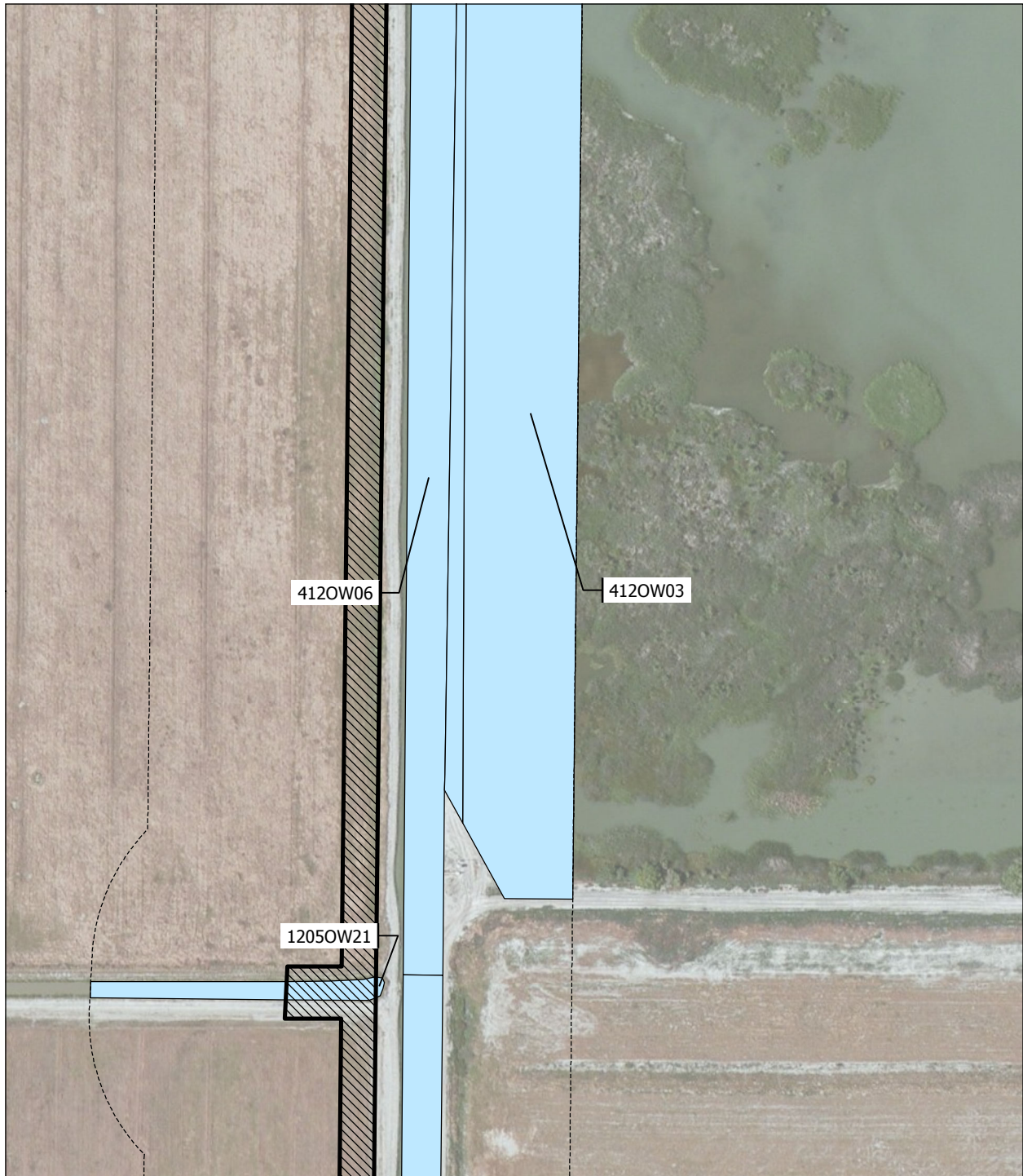


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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

Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type


-  Direct - Permanent
-  Direct - Temporary
-  Temporary No Fill

 Canals/Ditches/Lacustrine

 Wetlands (Seasonal/Emergent)

 Riparian

 Seasonal riverine

 Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



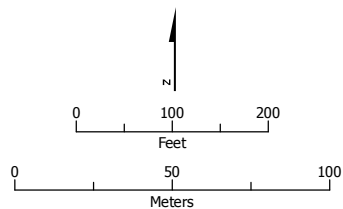
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

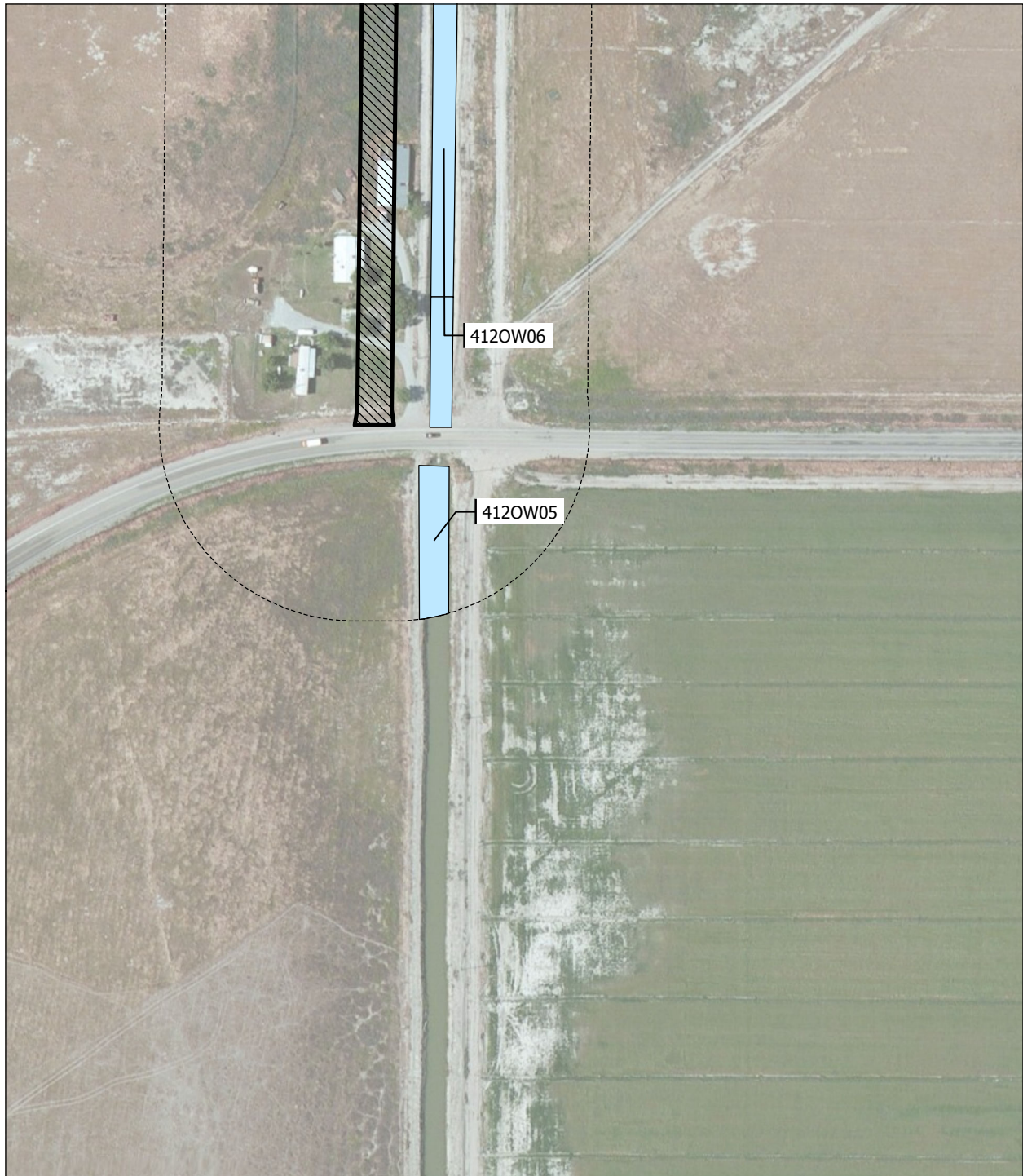
Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

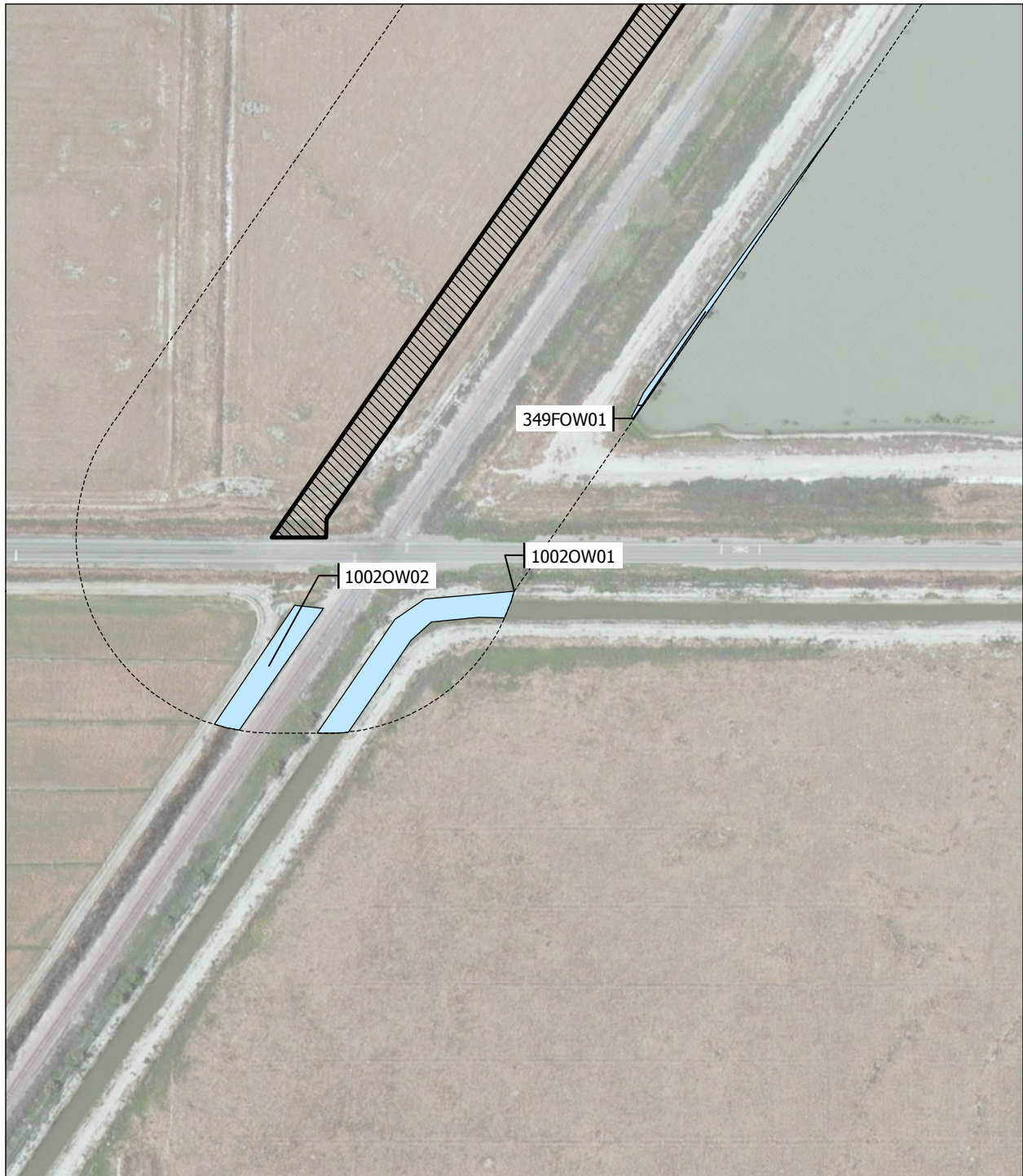
Impact Type

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- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

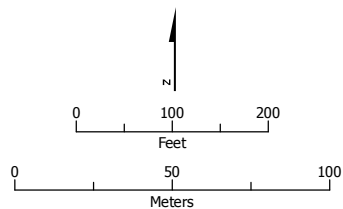
- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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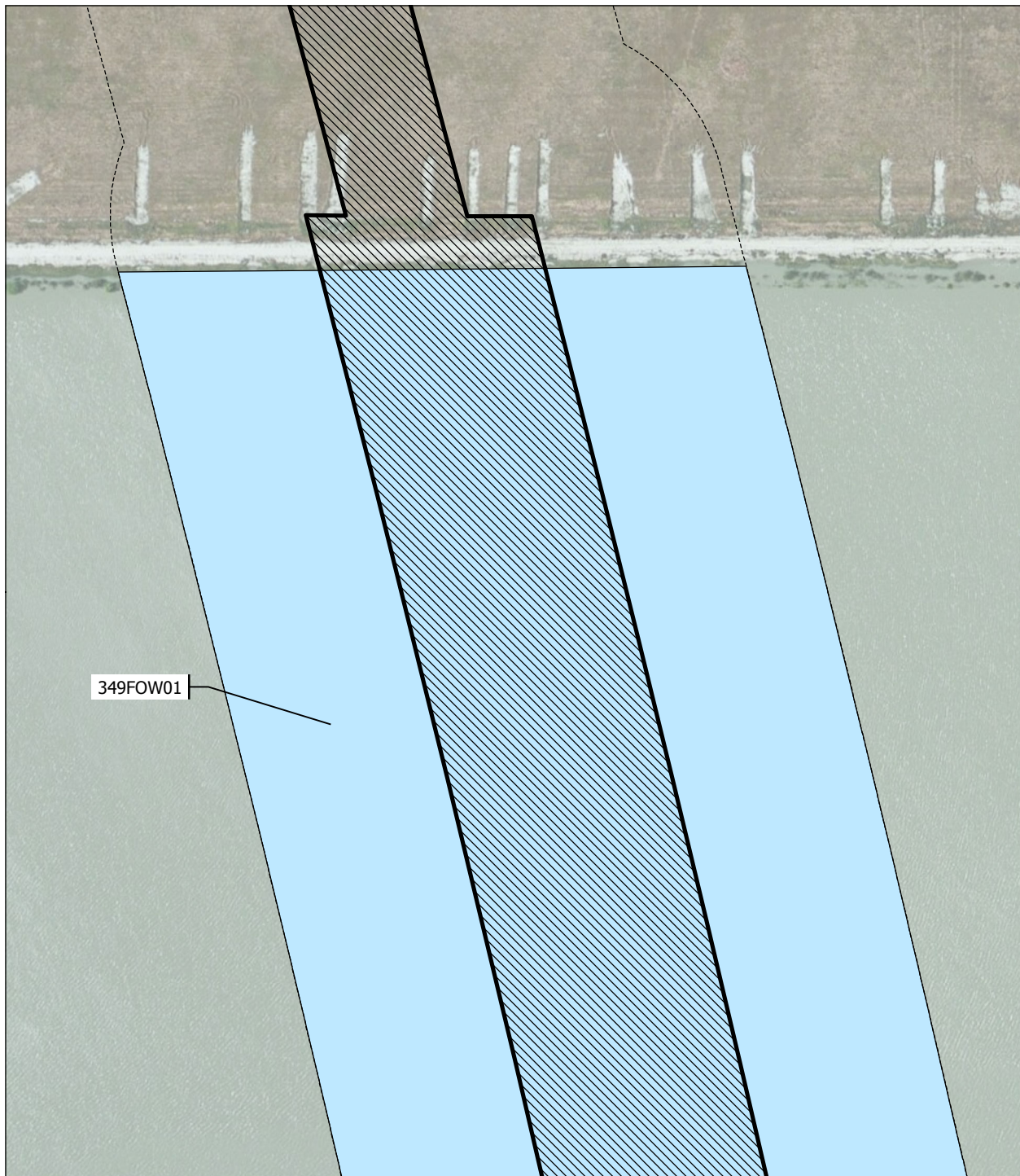
250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales



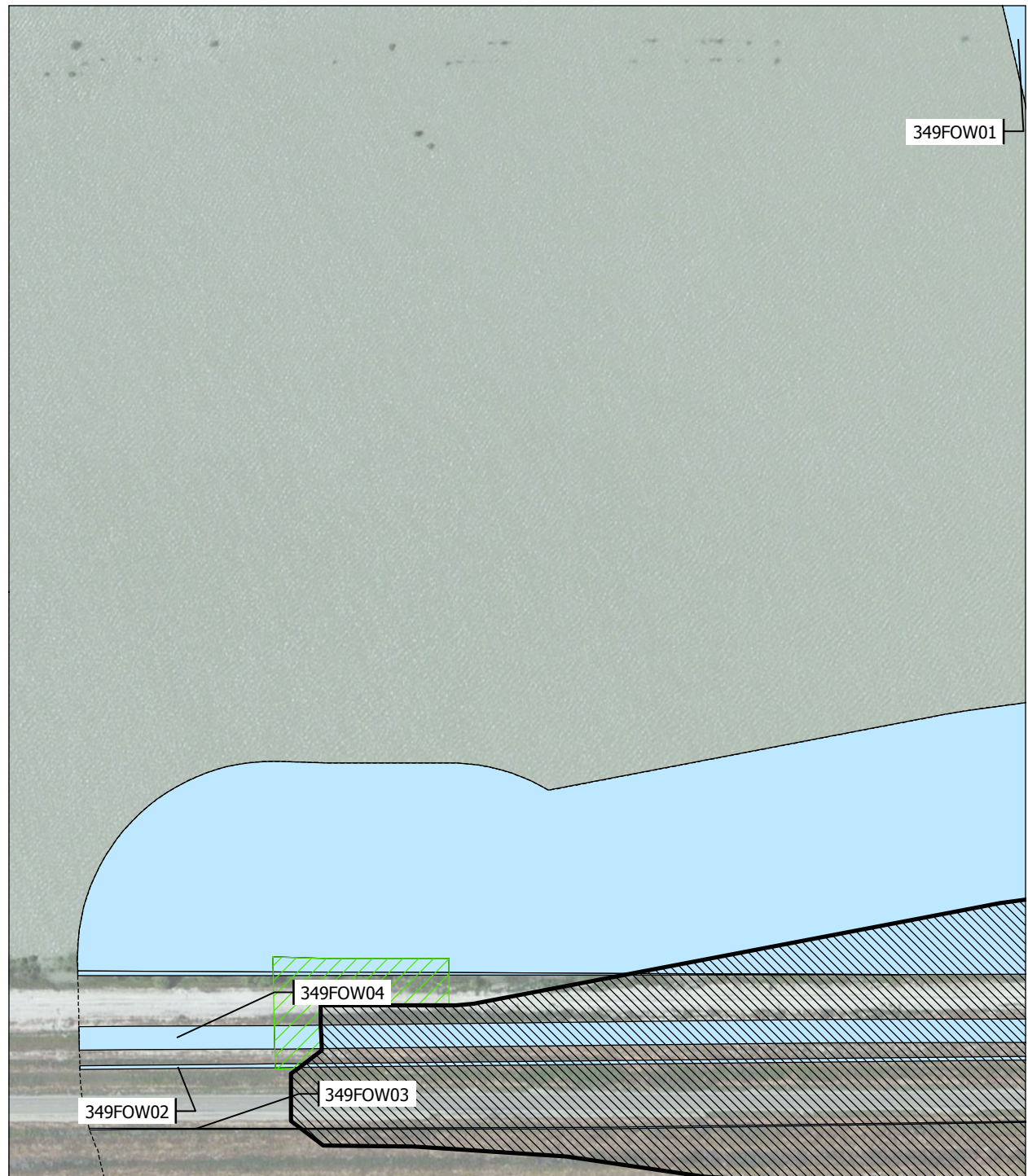
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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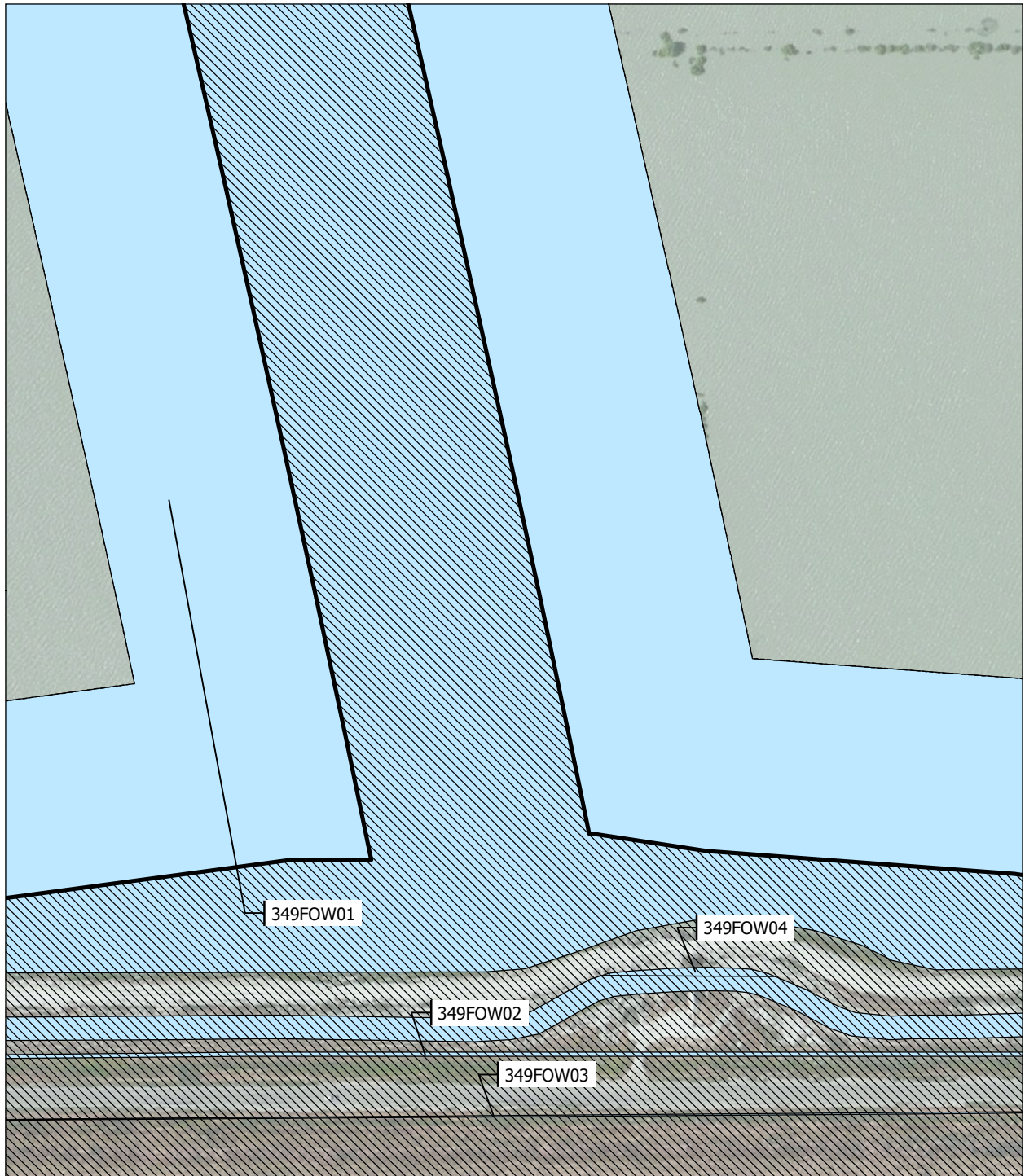


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Image source: ESRI

March 17, 2014

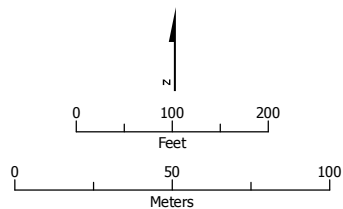


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



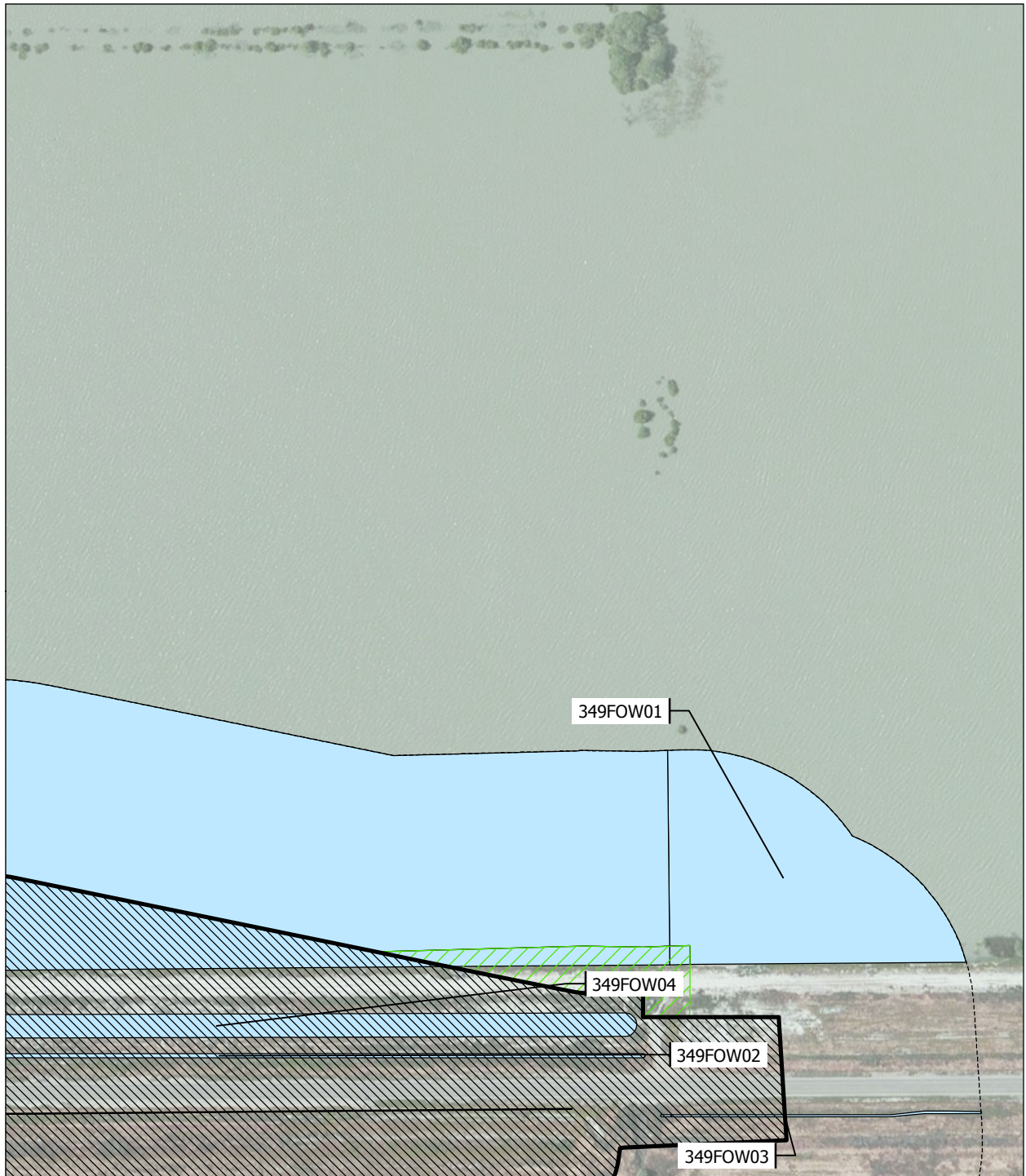
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Image source: ESRI

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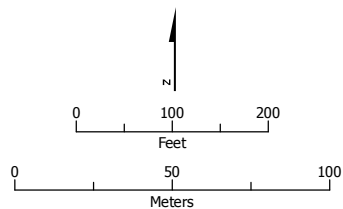
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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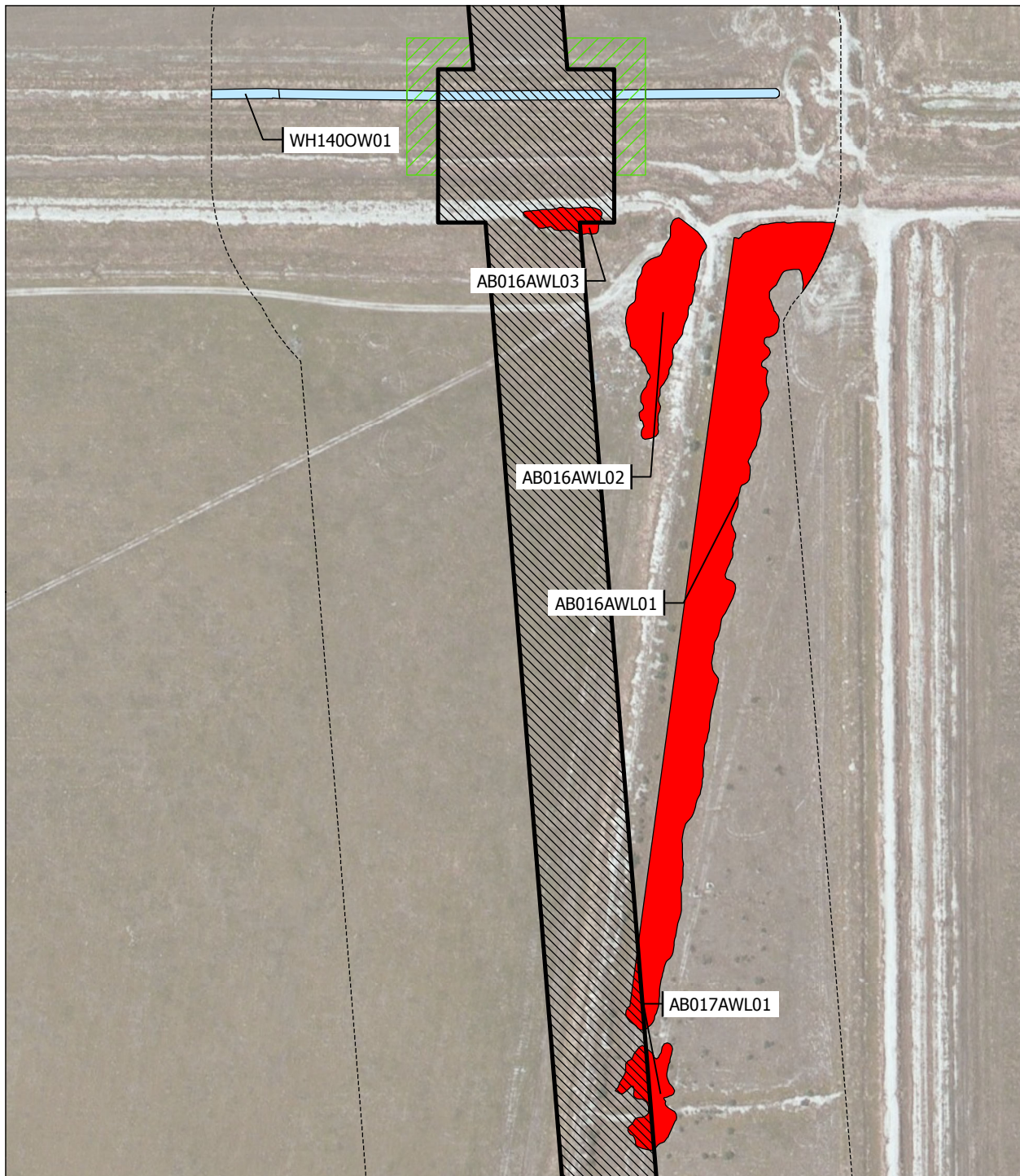


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Image source: ESRI

March 17, 2014

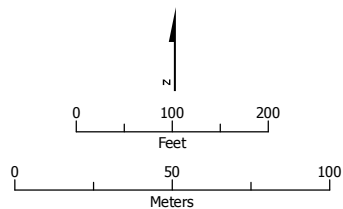


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



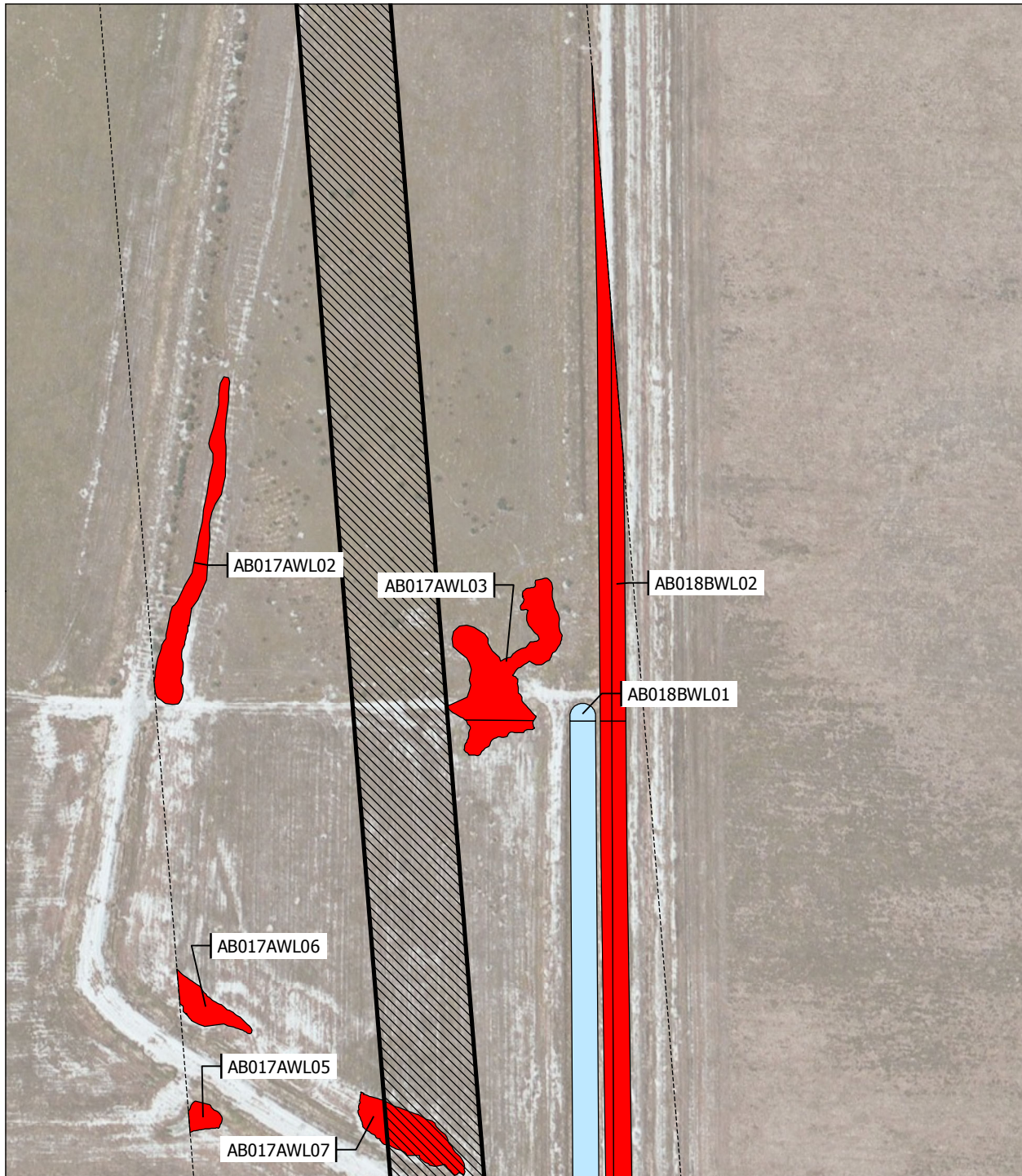
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Image source: ESRI

March 17, 2014



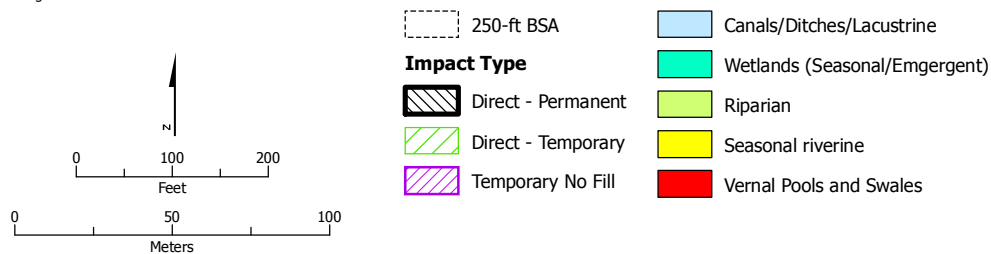
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

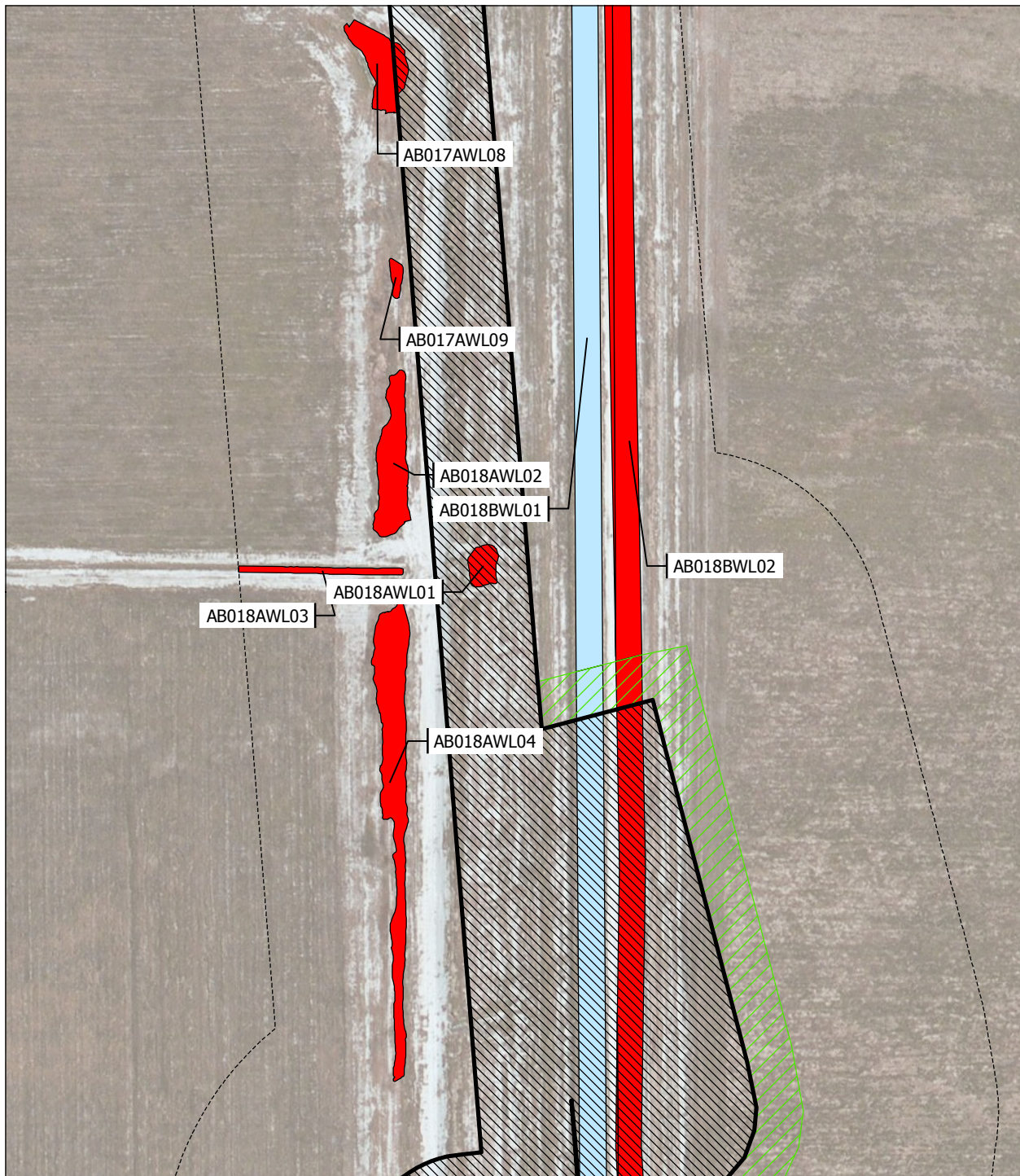
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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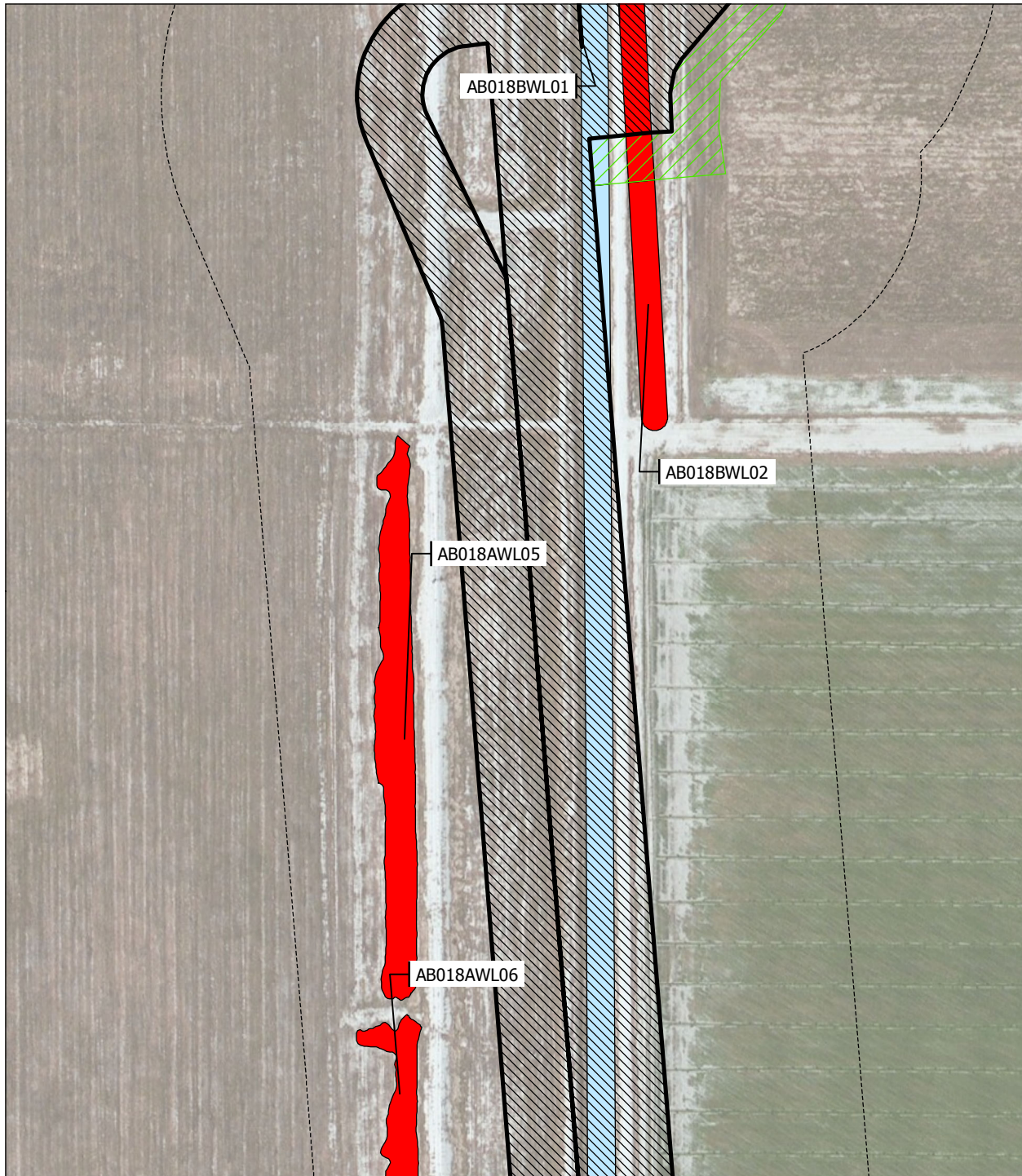
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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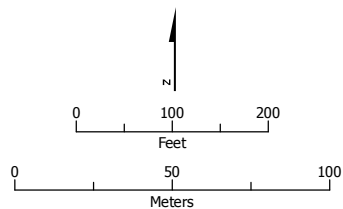


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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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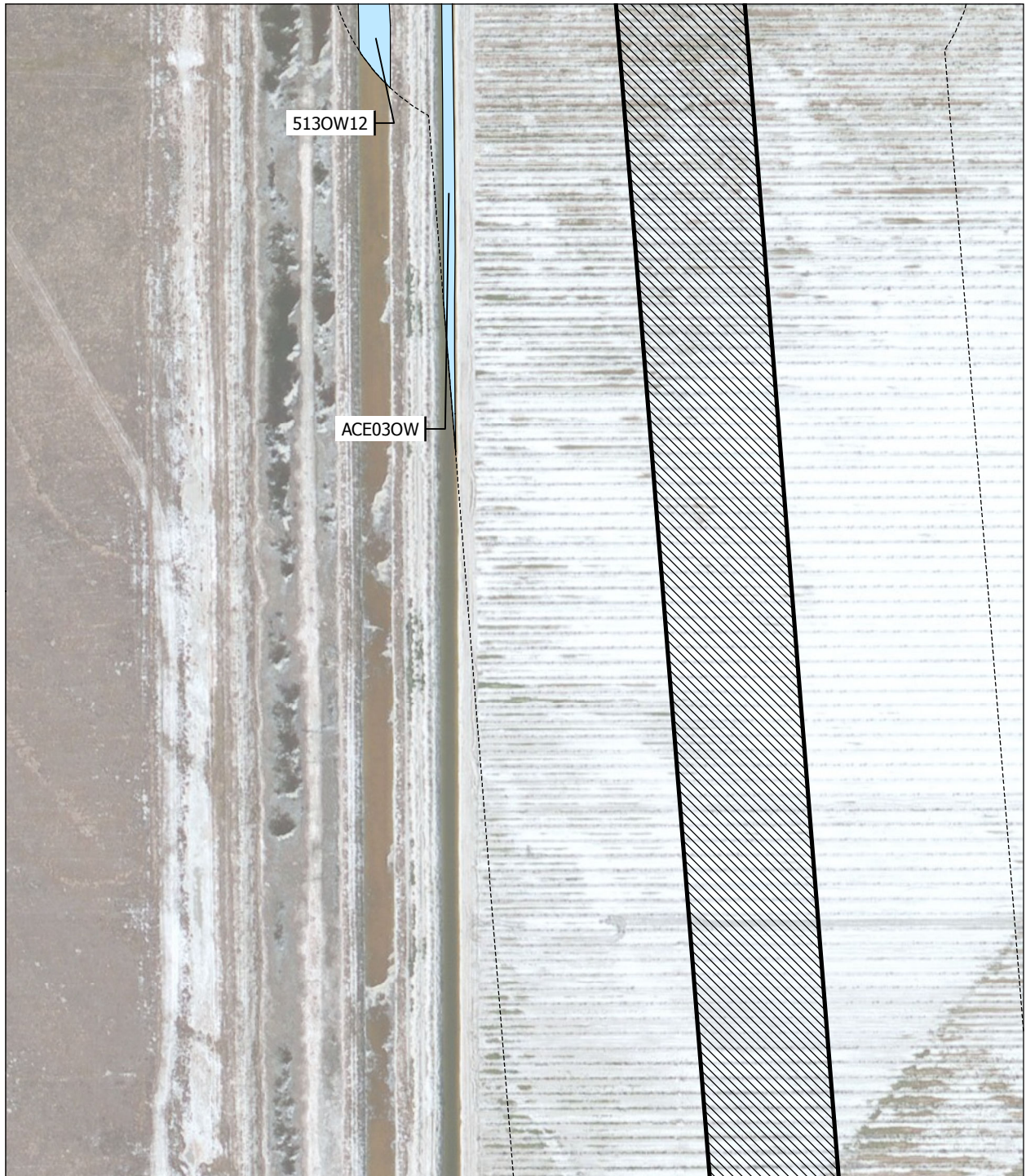
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

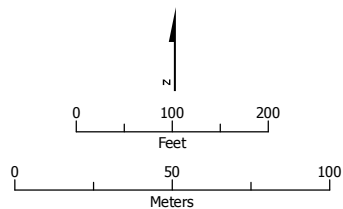


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



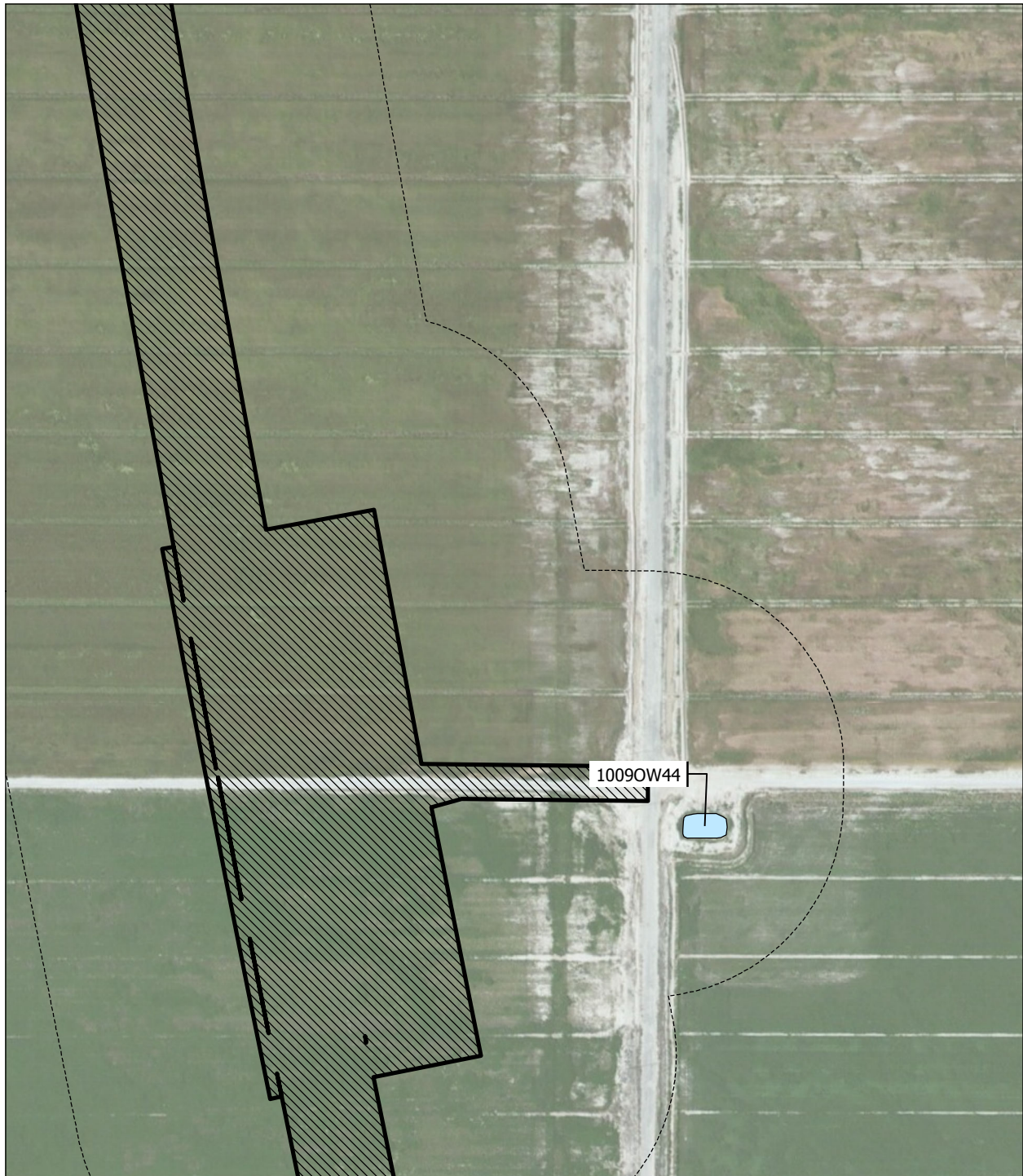
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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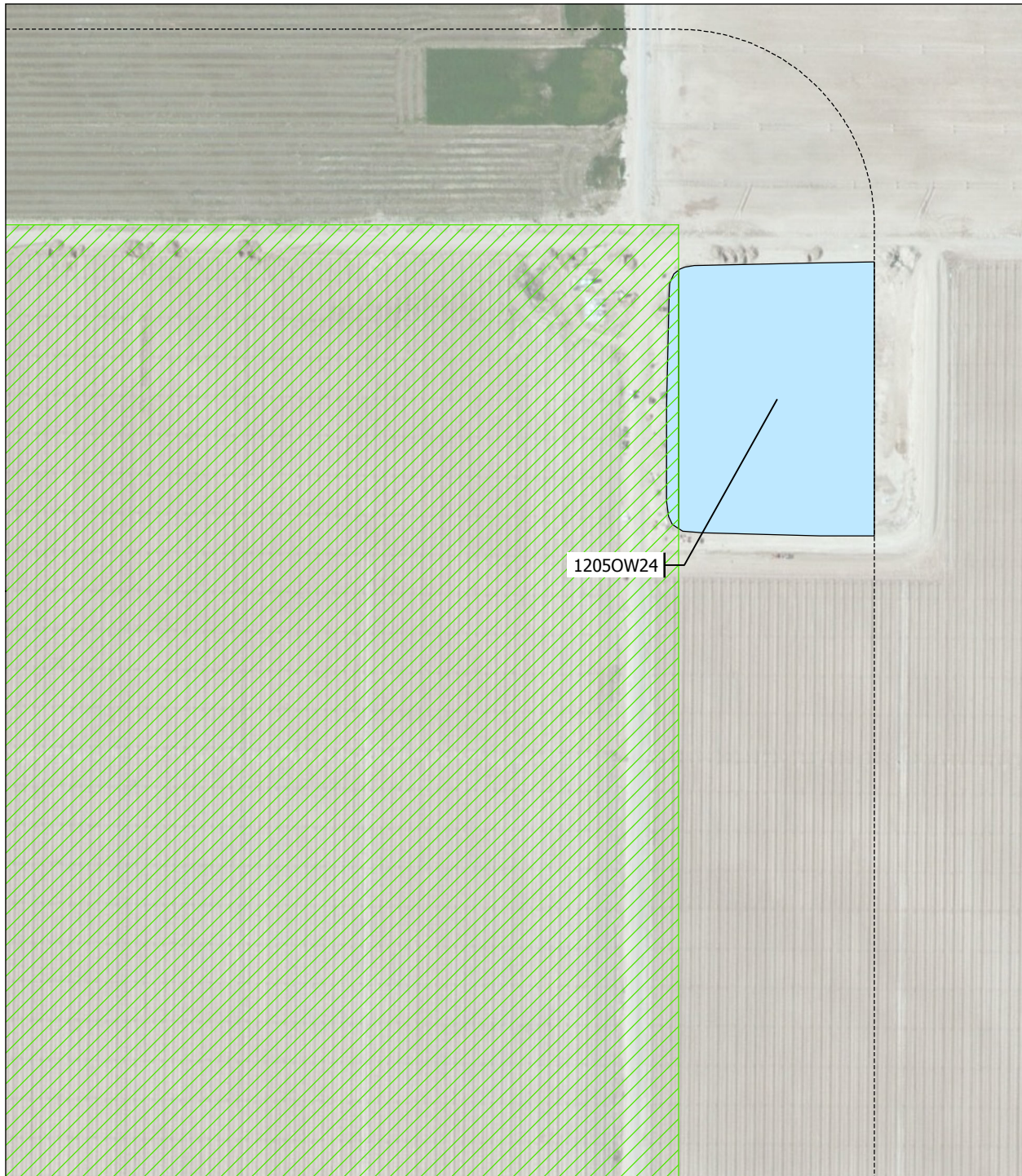


250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

- Canals/Ditches/Lacustrine
- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales



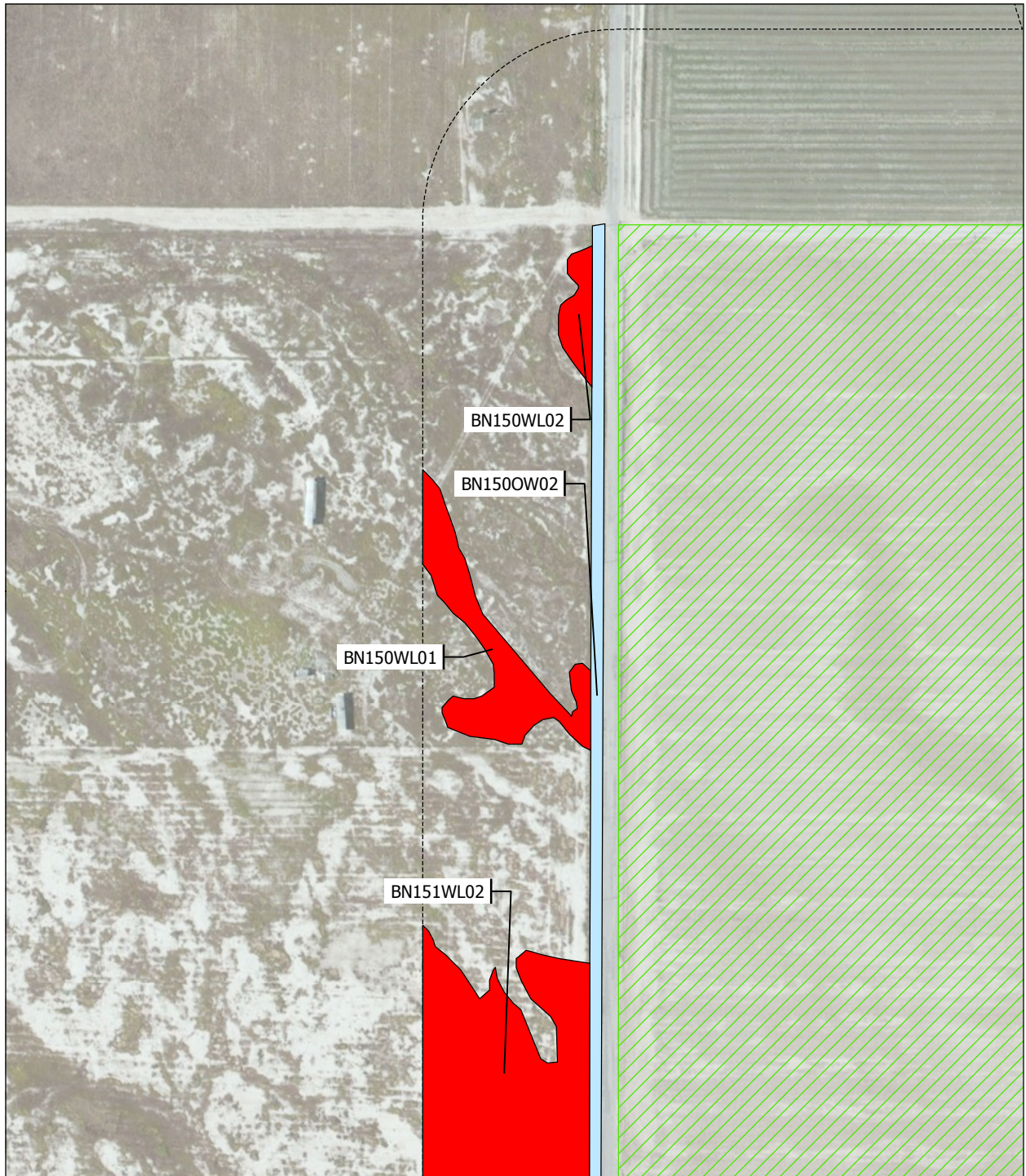
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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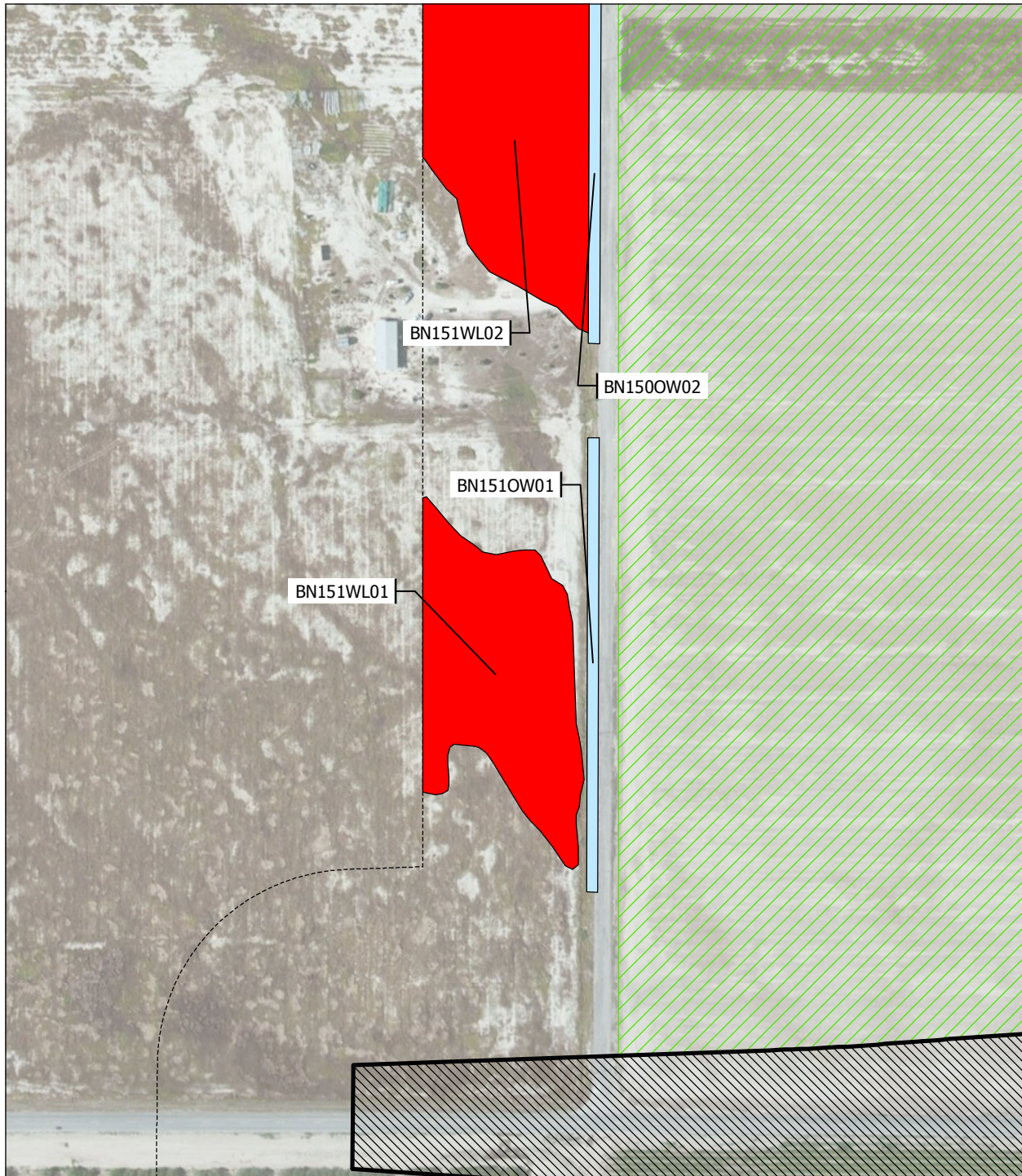


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Image source: ESRI

March 17, 2014

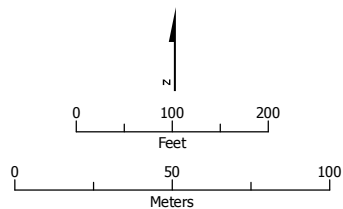


	250-ft BSA		Canals/Ditches/Lacustrine
Impact Type			Wetlands (Seasonal/Emergent)
	Direct - Permanent		Riparian
	Direct - Temporary		Seasonal riverine
	Temporary No Fill		Vernal Pools and Swales



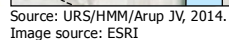
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Image source: ESRI

March 17, 2014

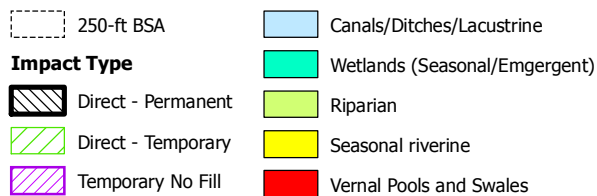


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

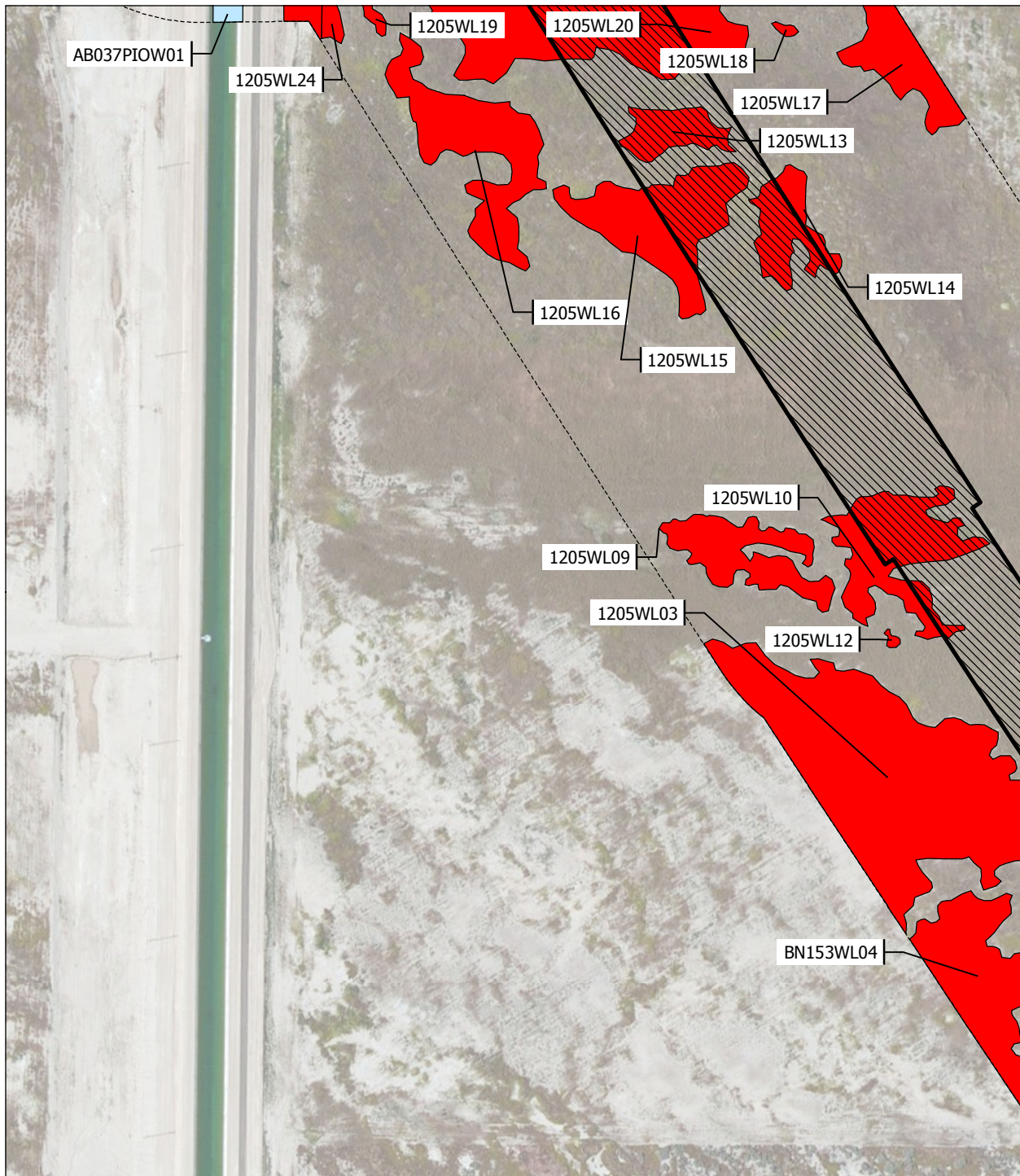
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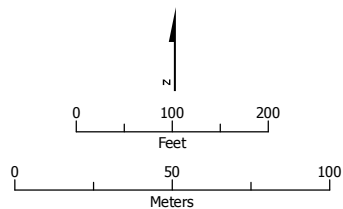


CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

Canals/Ditches/Lacustrine

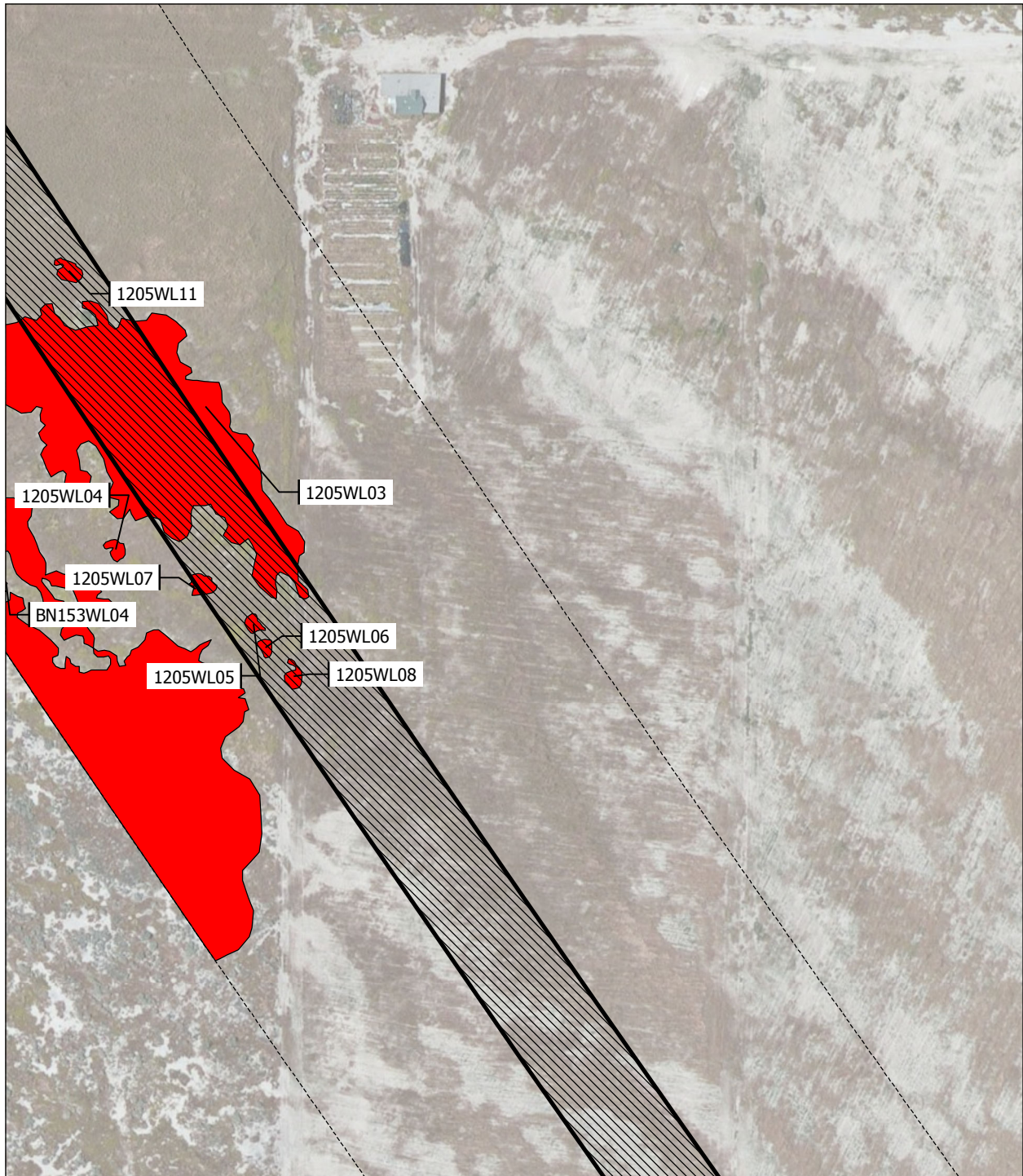
Wetlands (Seasonal/Emergent)

Riparian

Seasonal riverine

Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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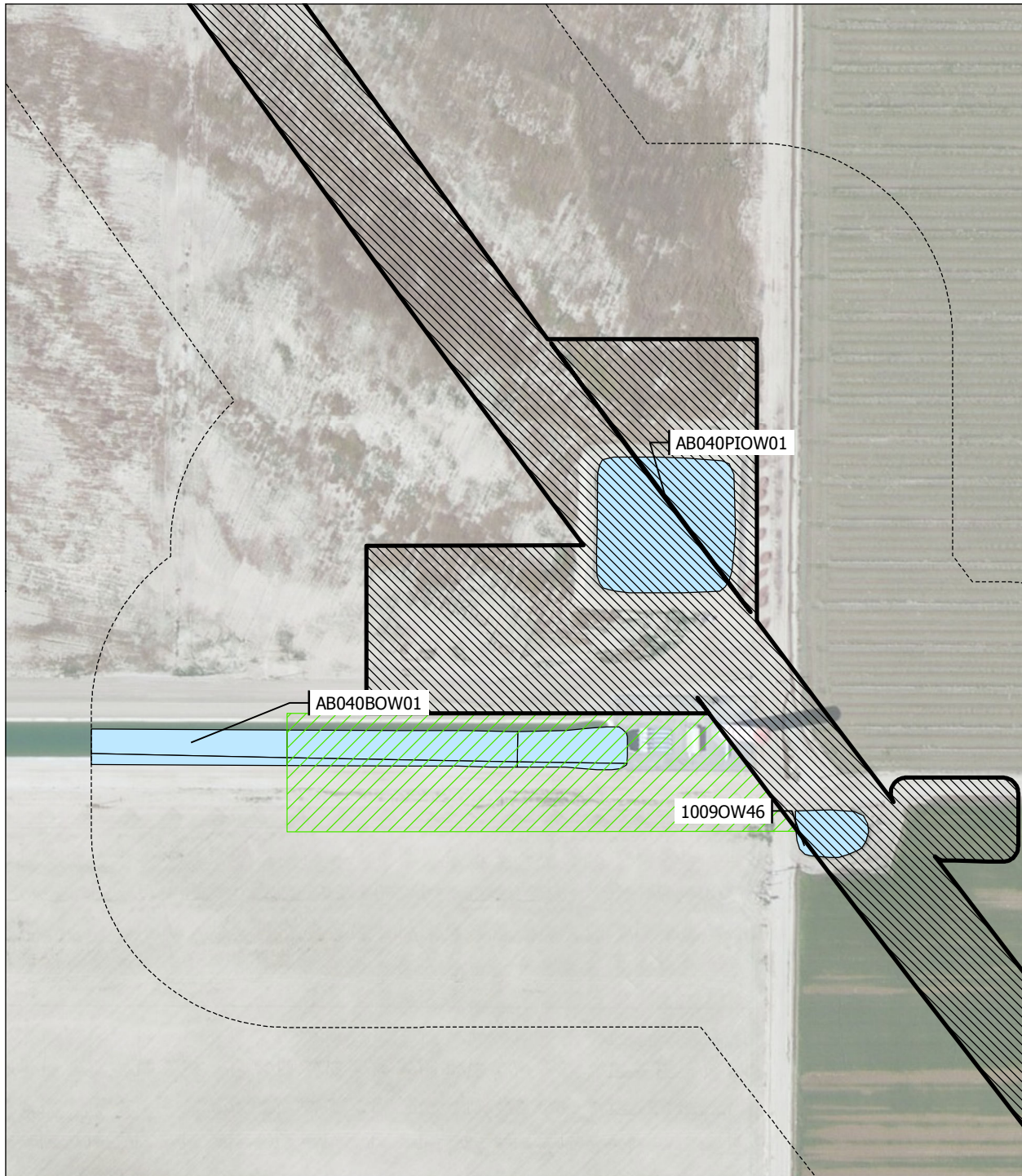


250-ft BSA

Impact Type

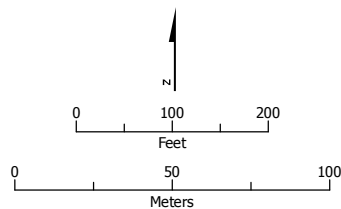
- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

- Canals/Ditches/Lacustrine
- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales



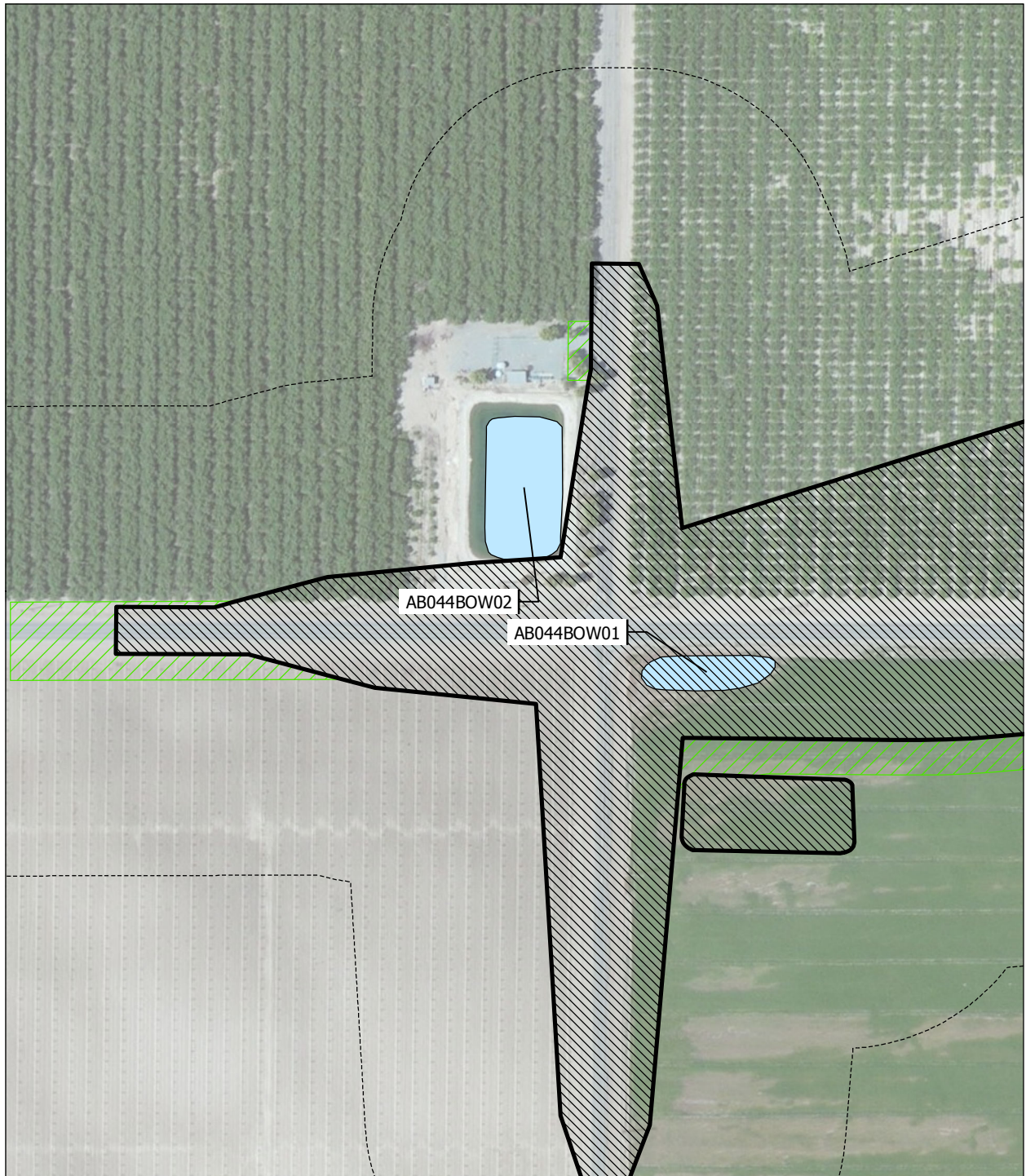
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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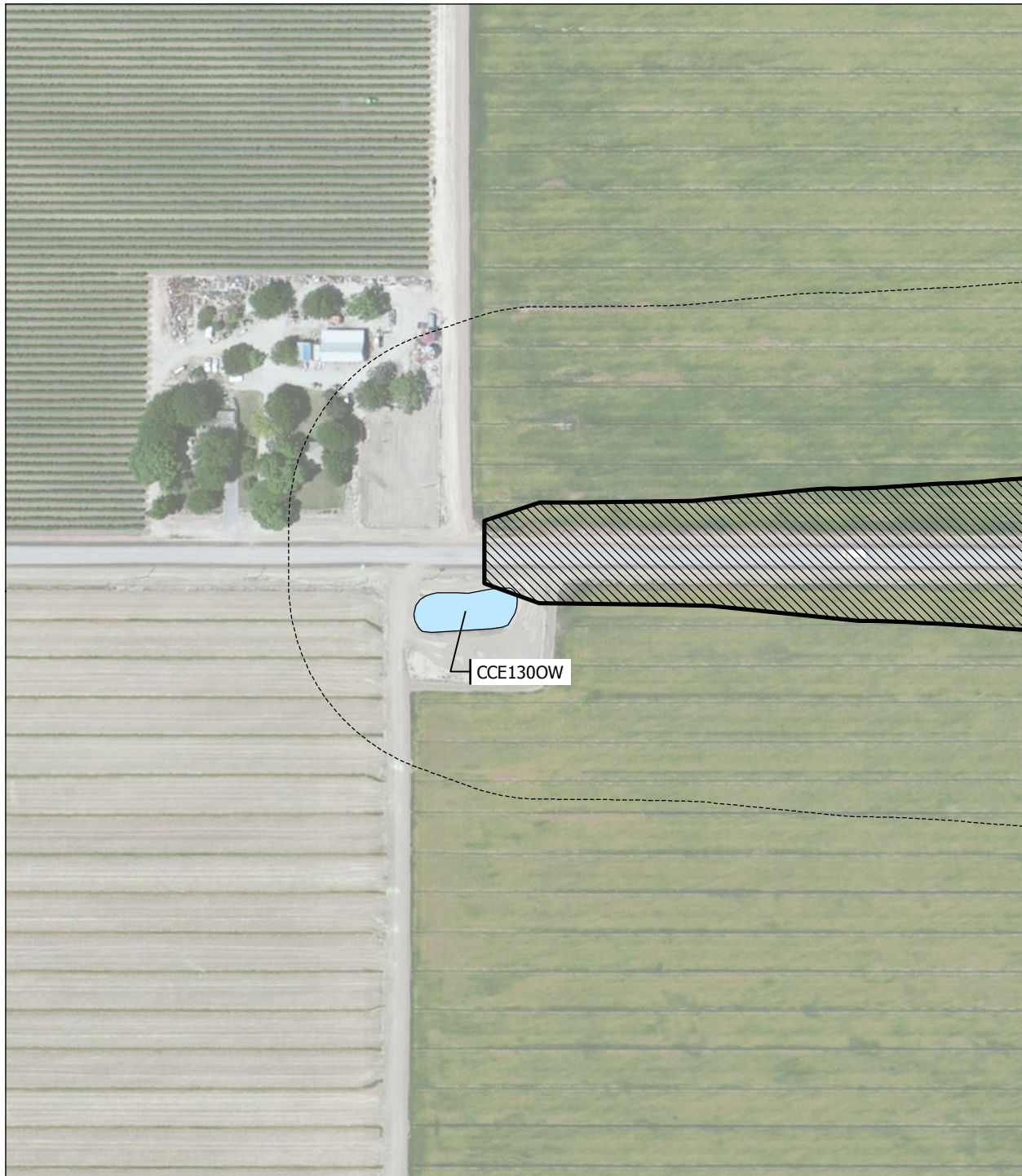


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

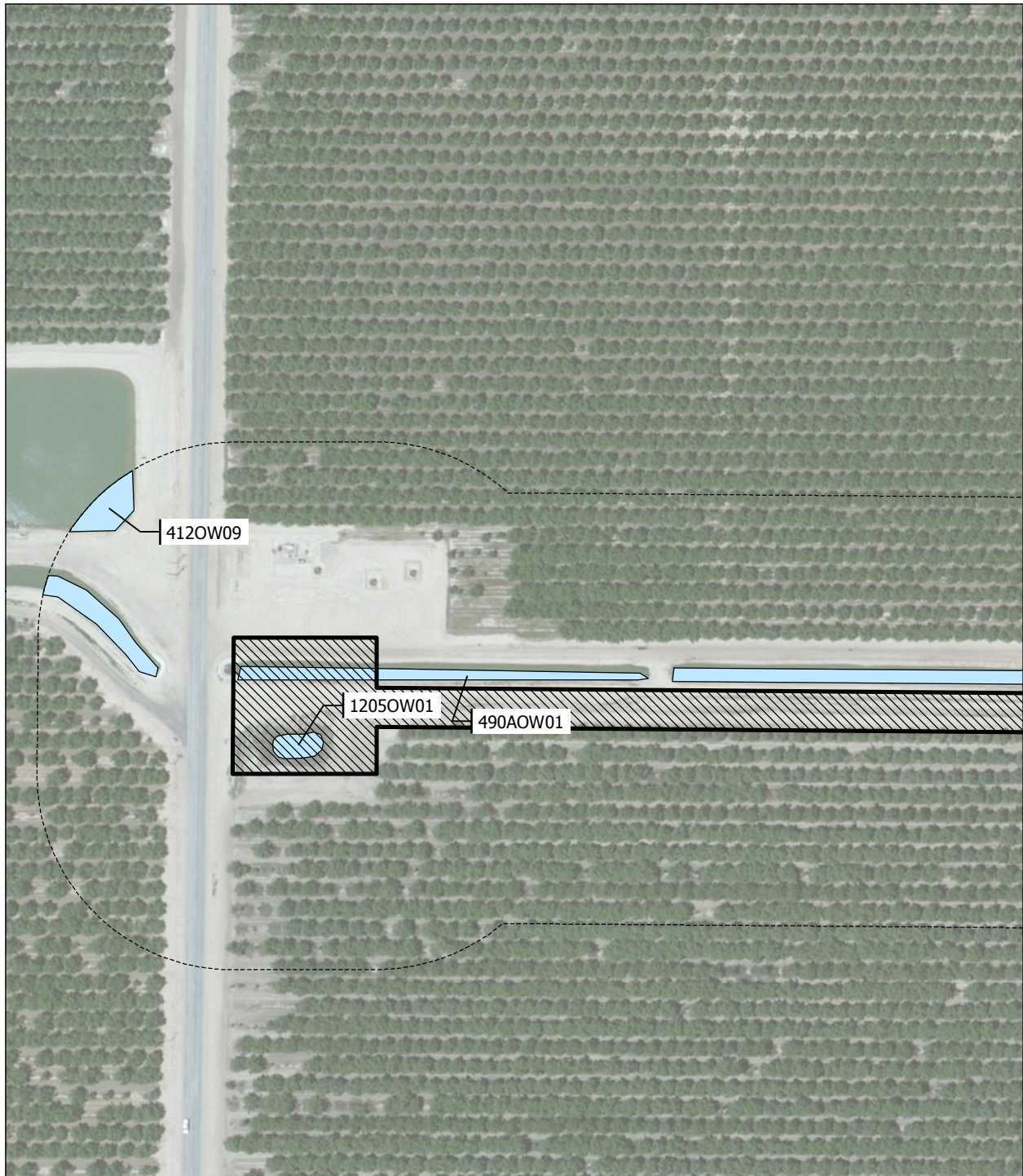


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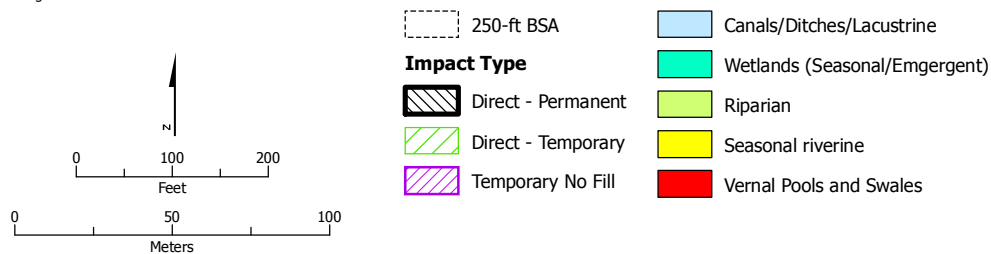


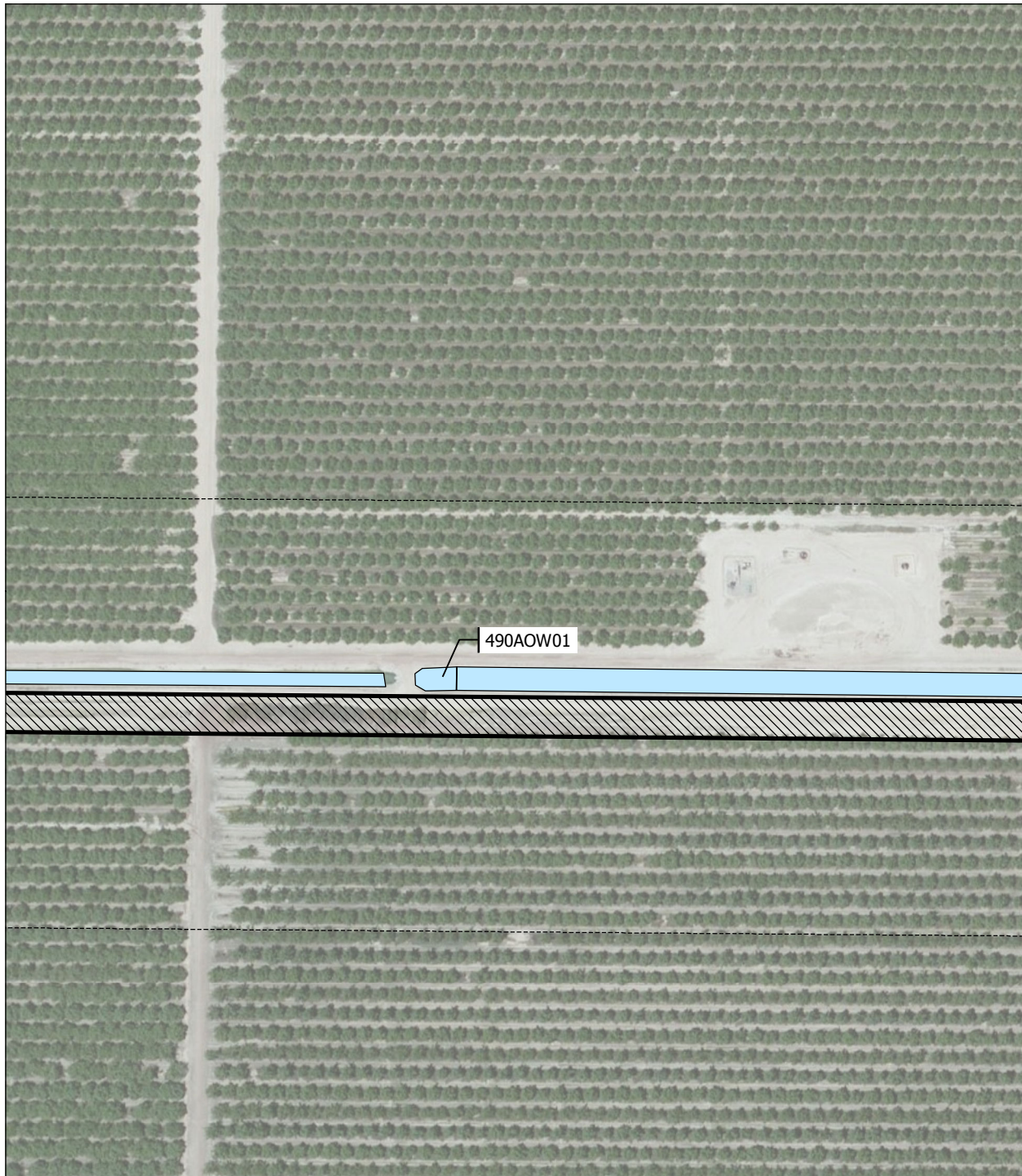
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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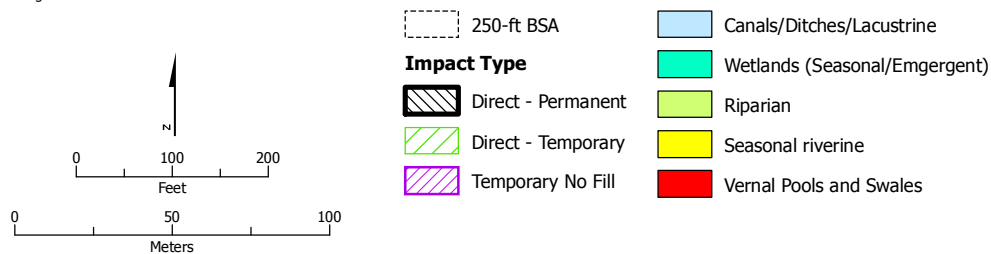


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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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FRESNO TO BAKERSFIELD

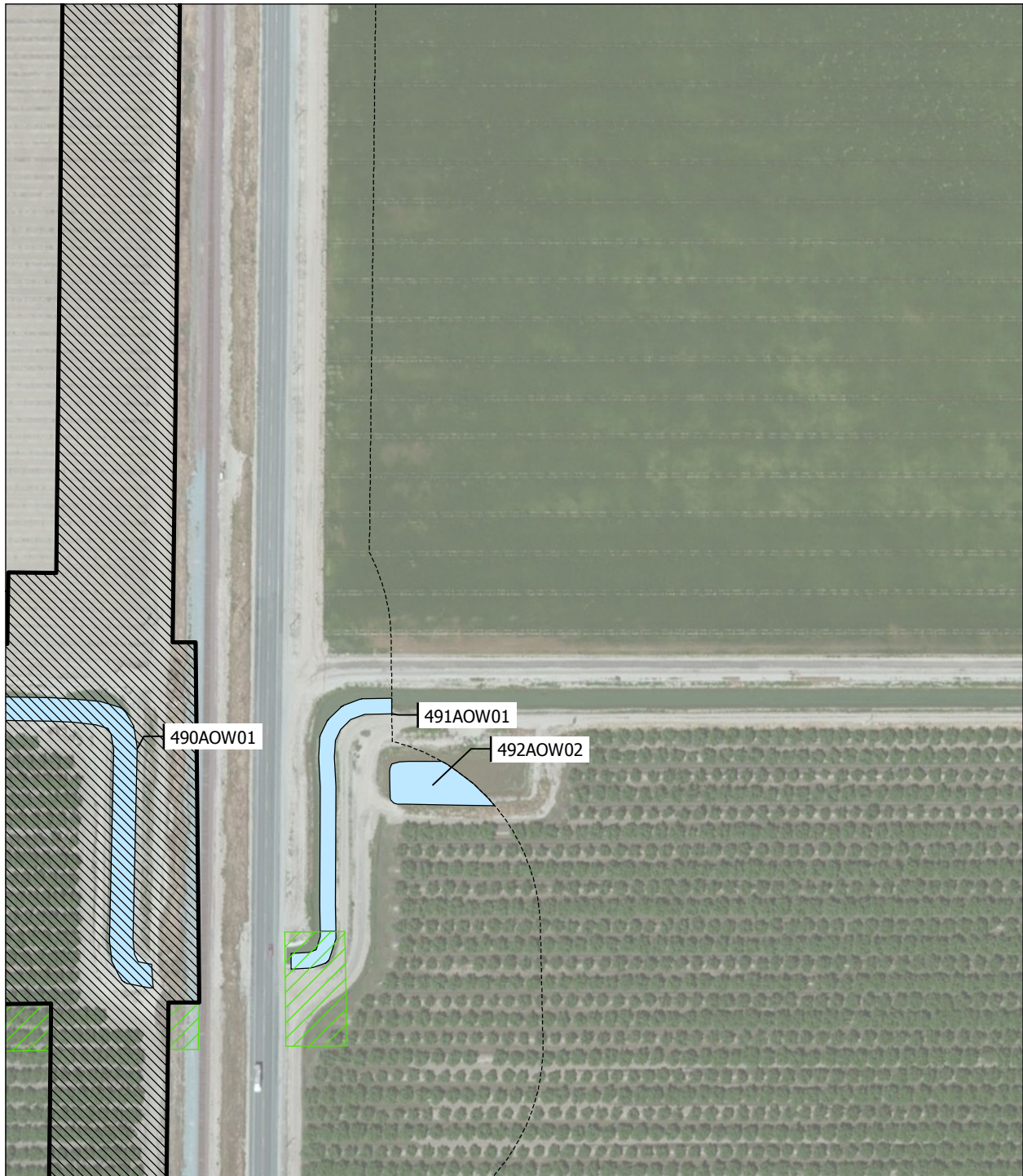


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Image source: ESRI

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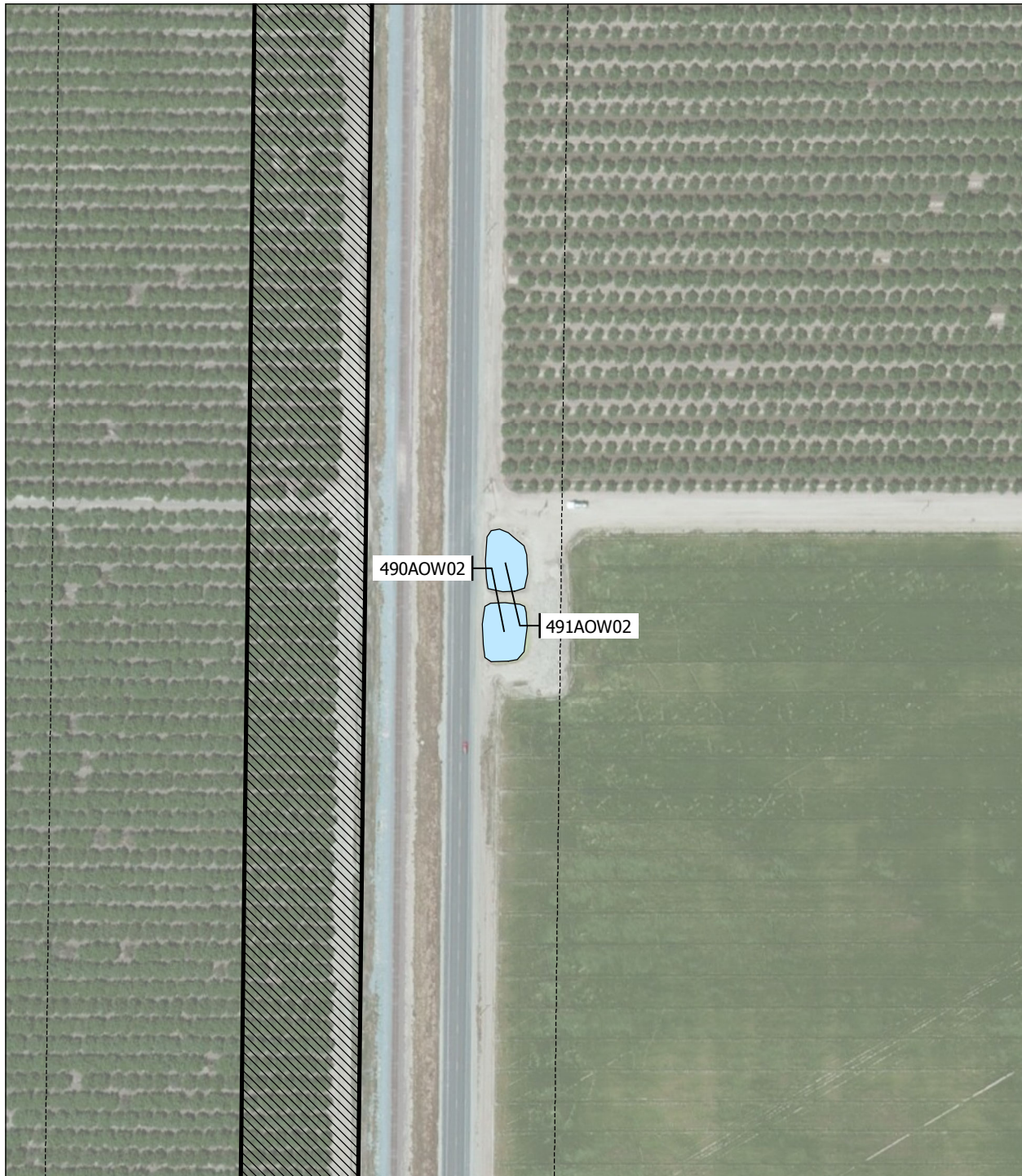


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

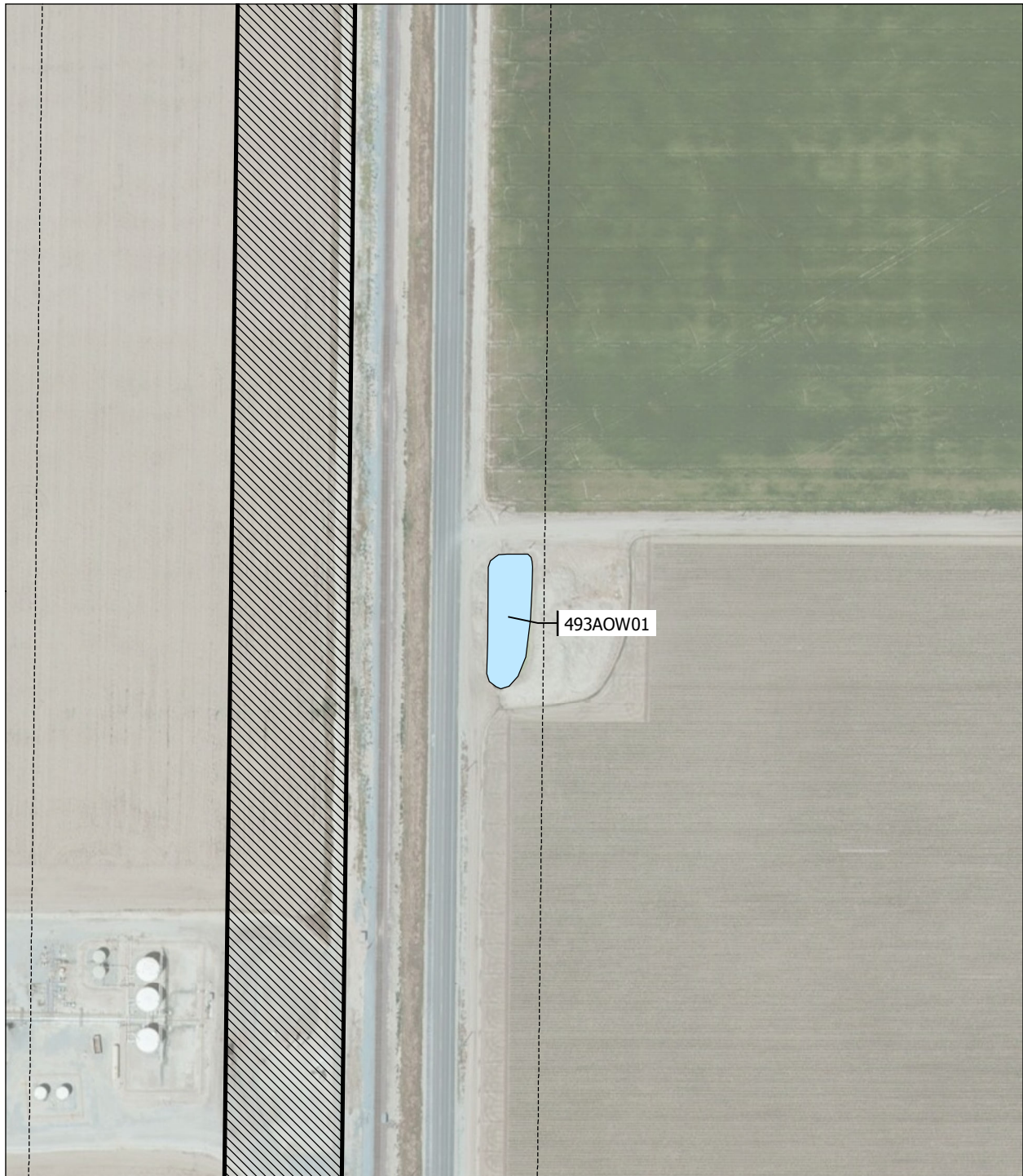


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March 17, 2014

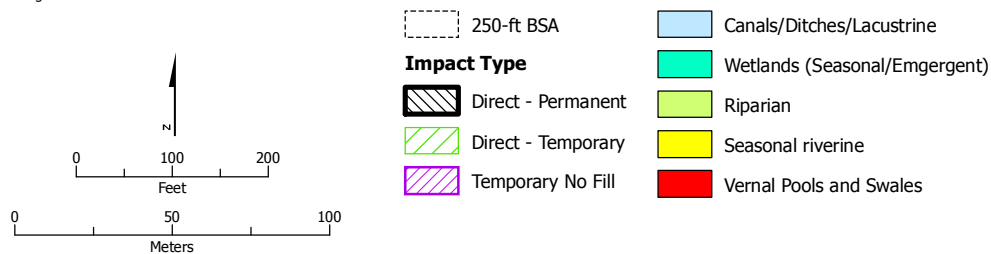


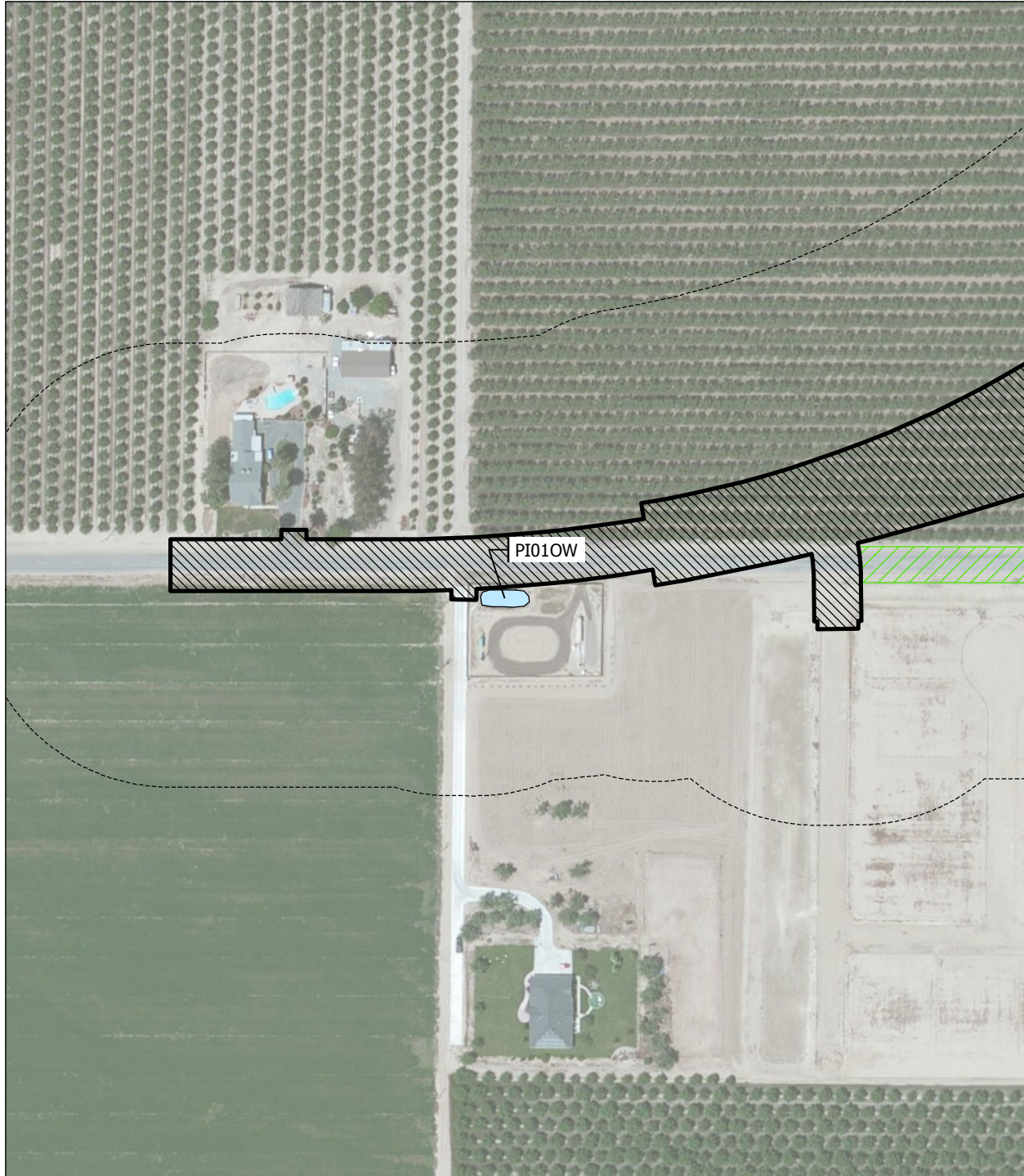
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

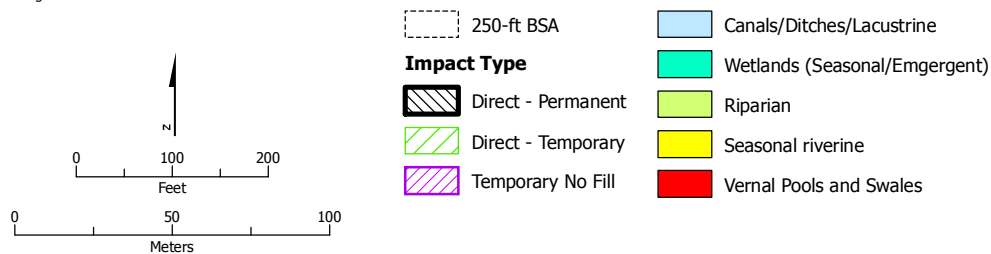
March 17, 2014





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Image source: ESRI

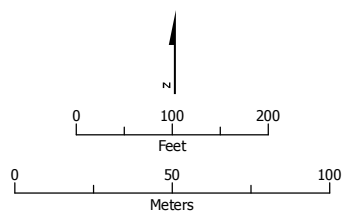
March 17, 2014





Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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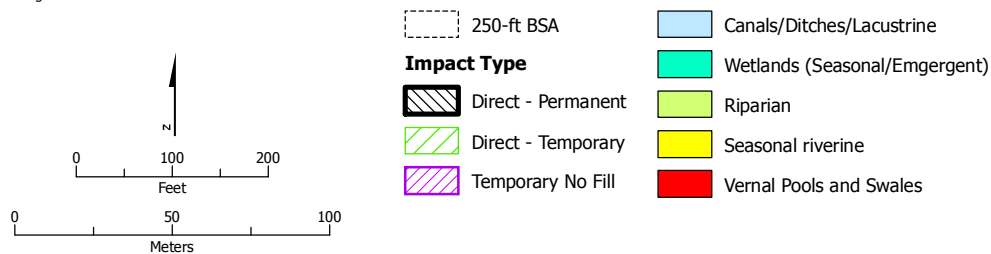


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

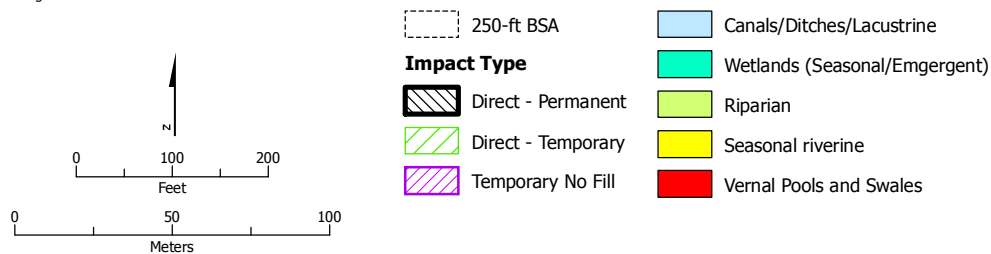
March 17, 2014

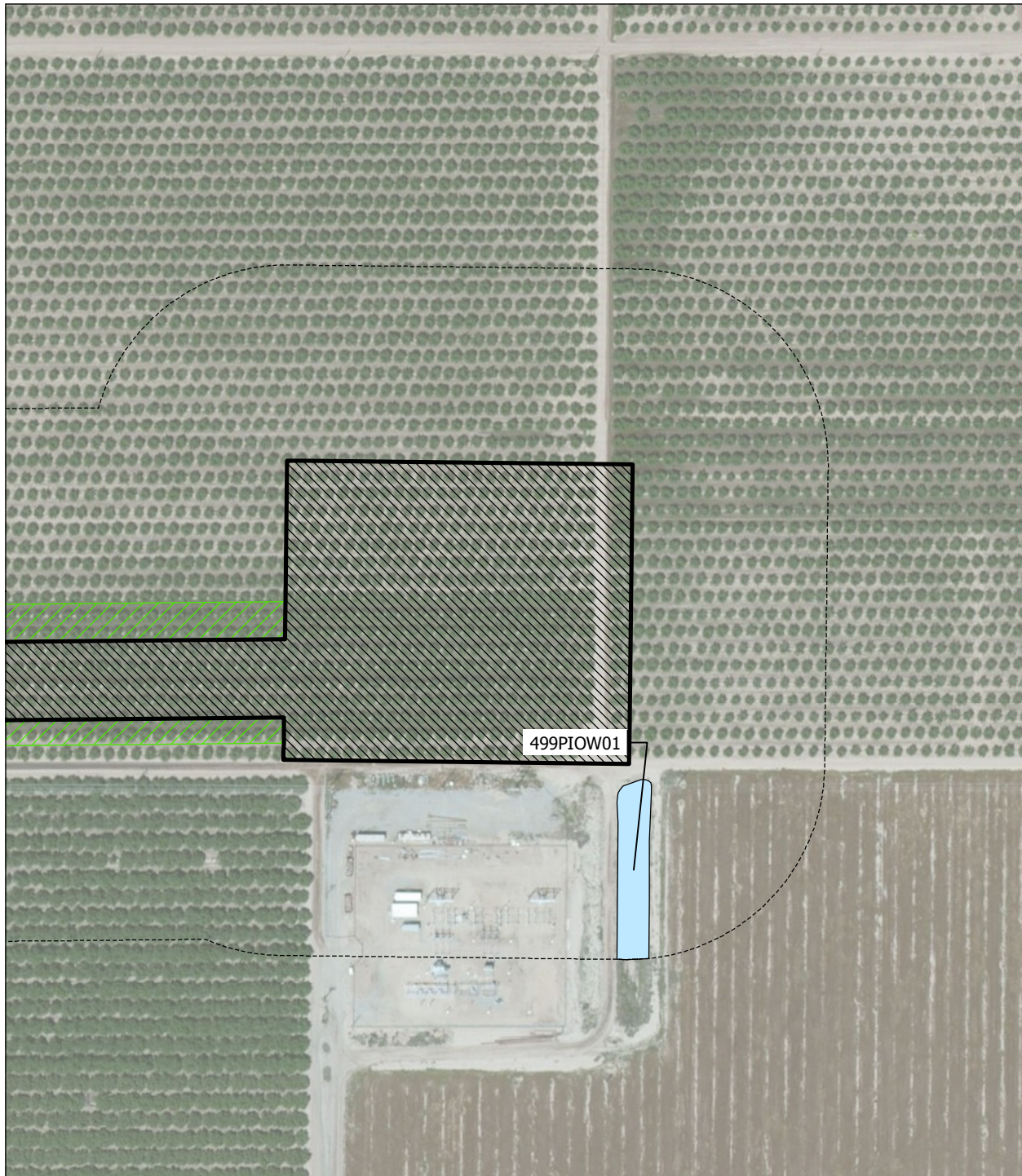




Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

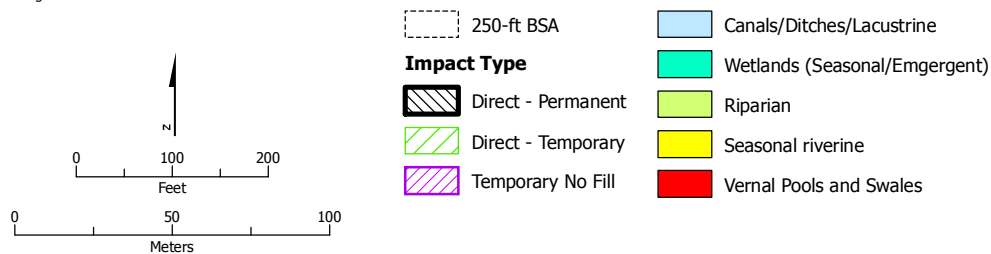
March 17, 2014



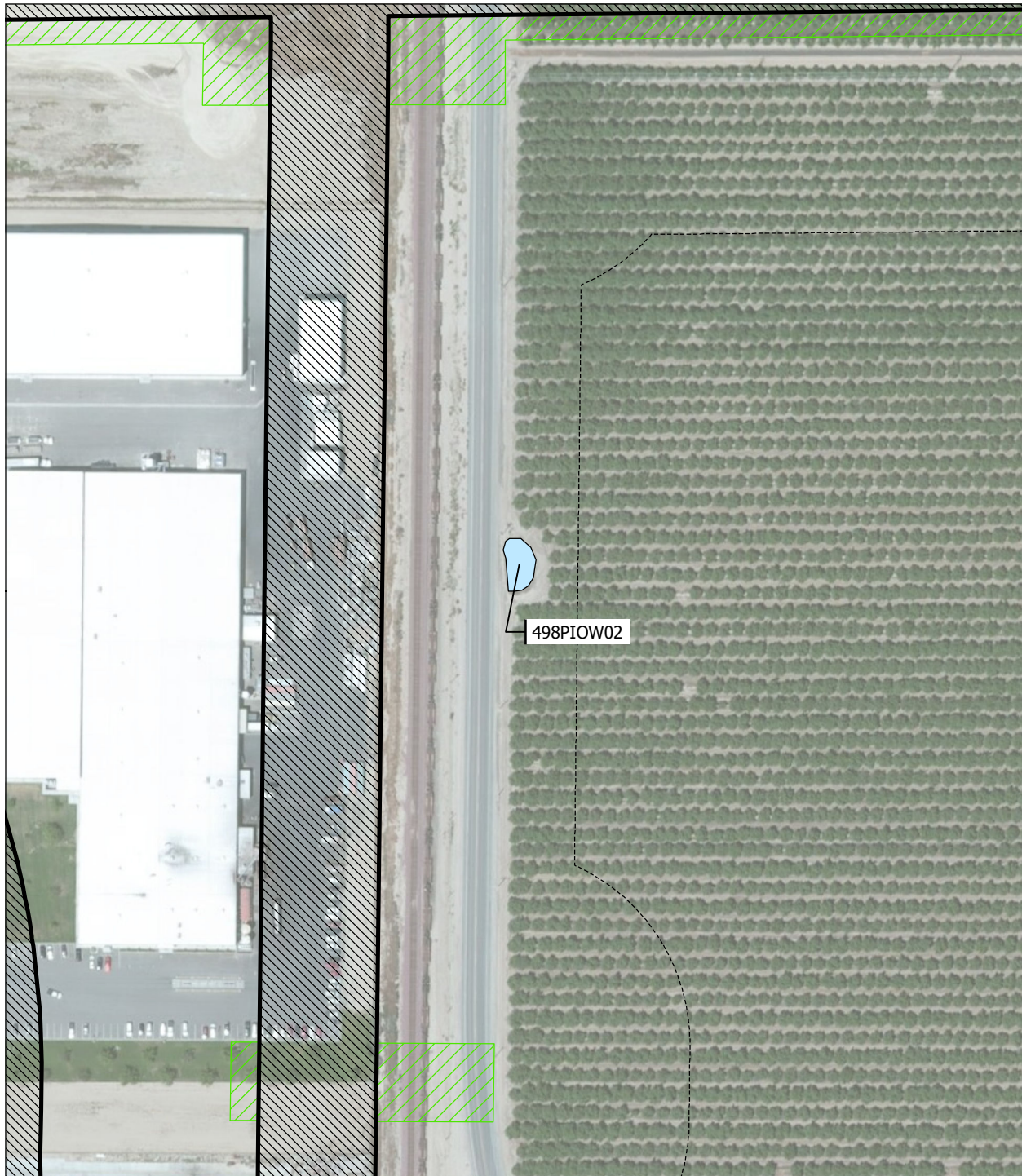


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

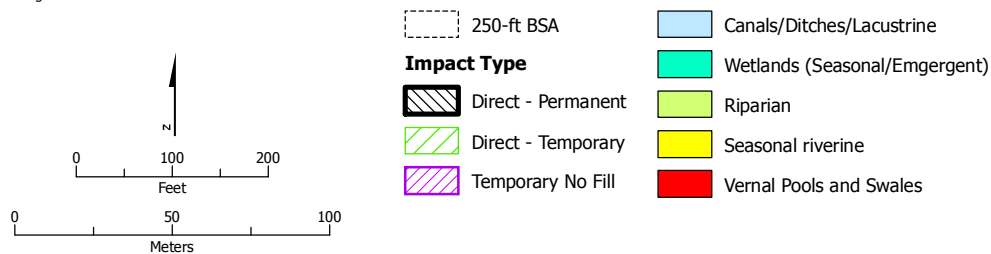


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FRESNO TO BAKERSFIELD



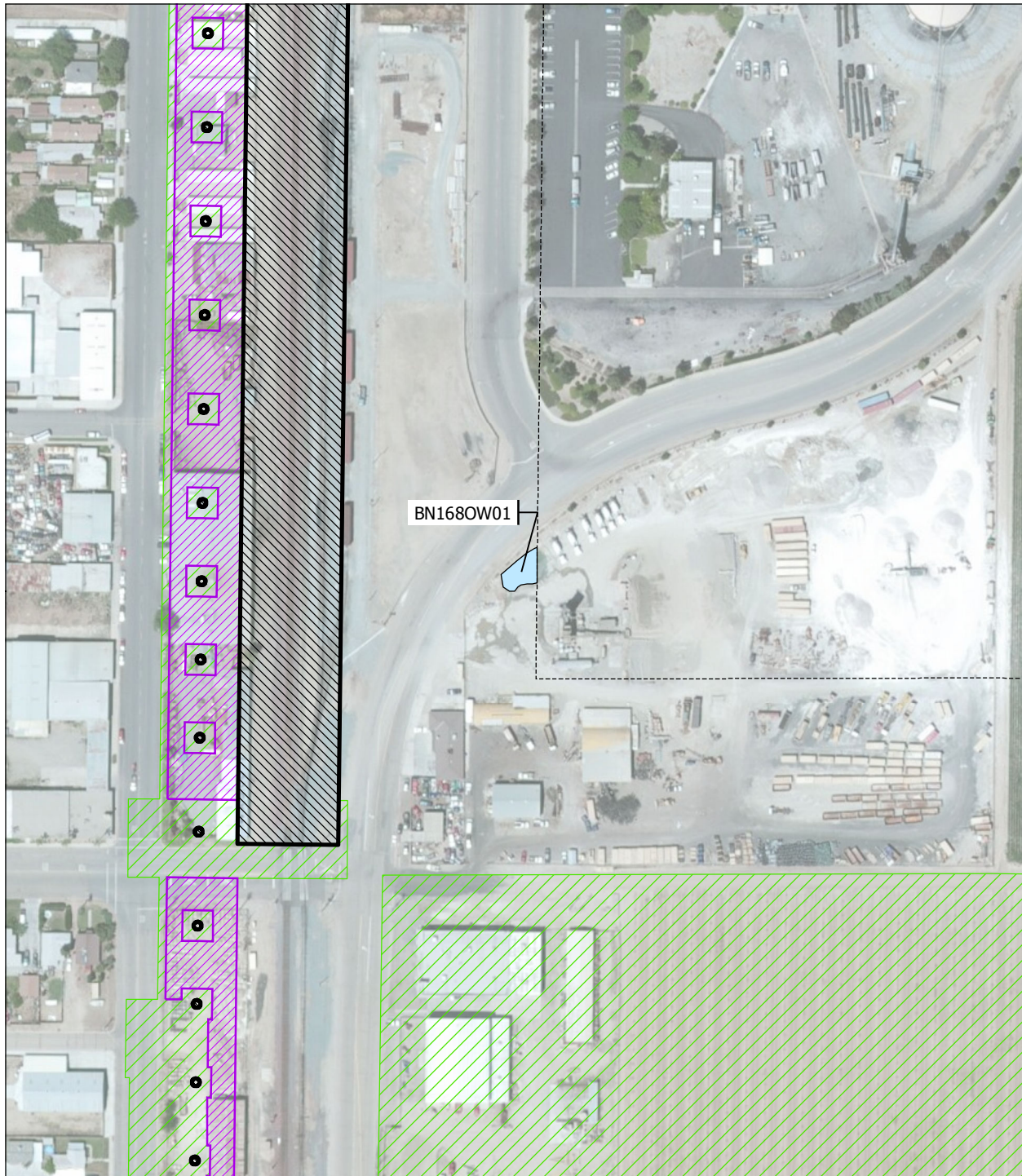
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Image source: ESRI

March 17, 2014



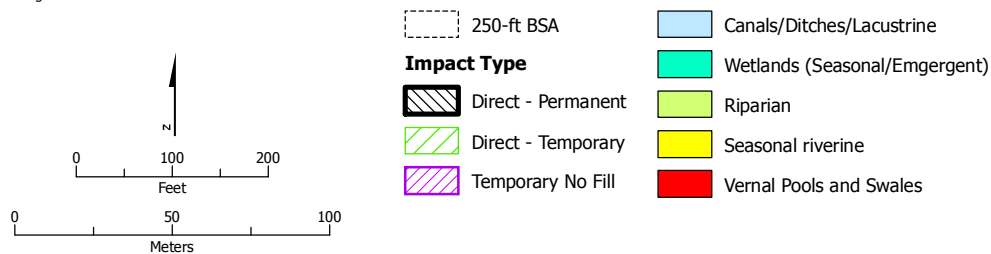
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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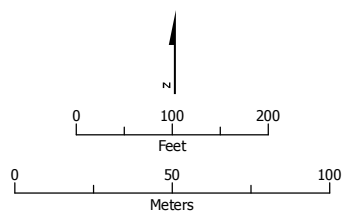


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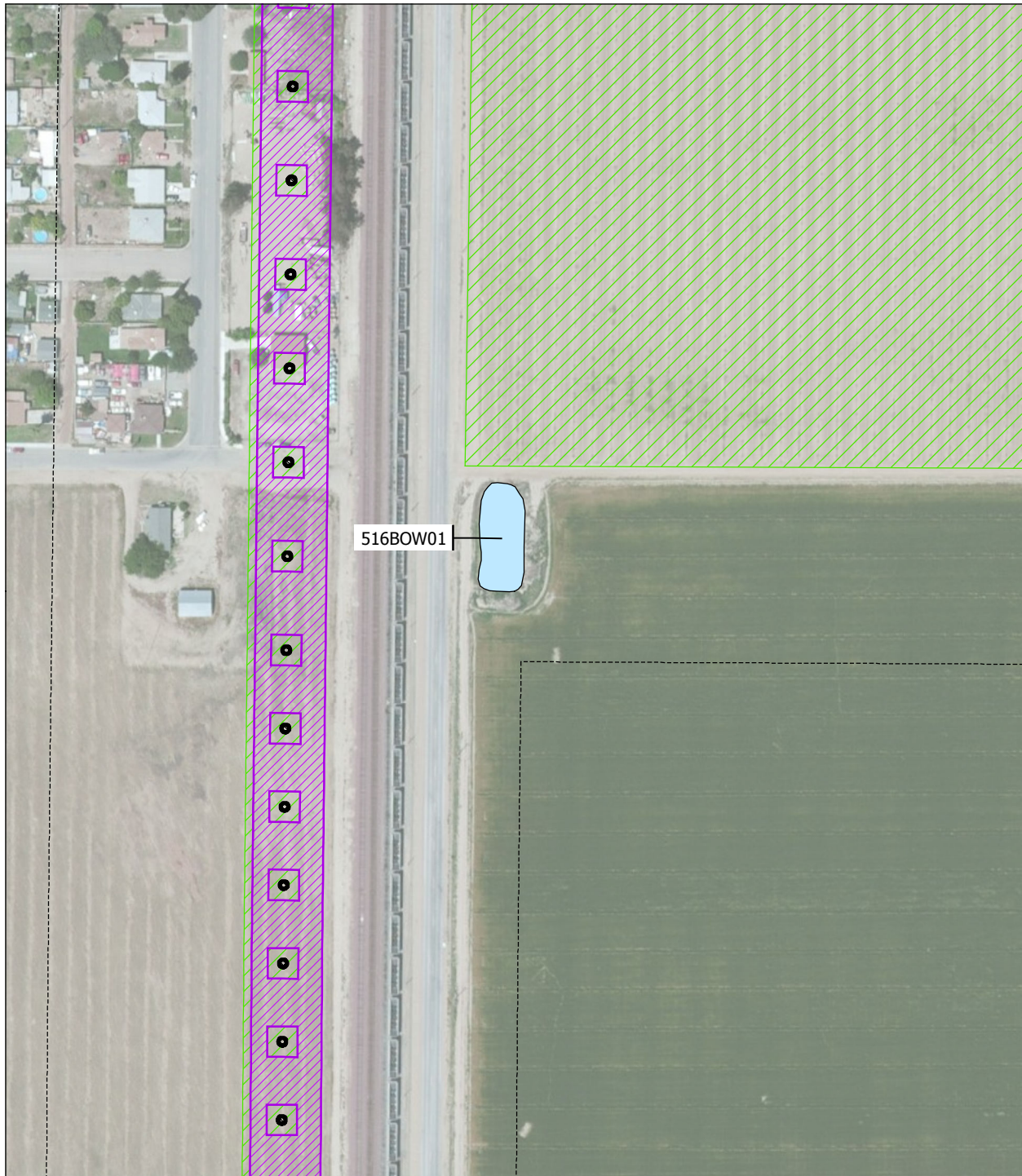
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Image source: ESRI

March 17, 2014



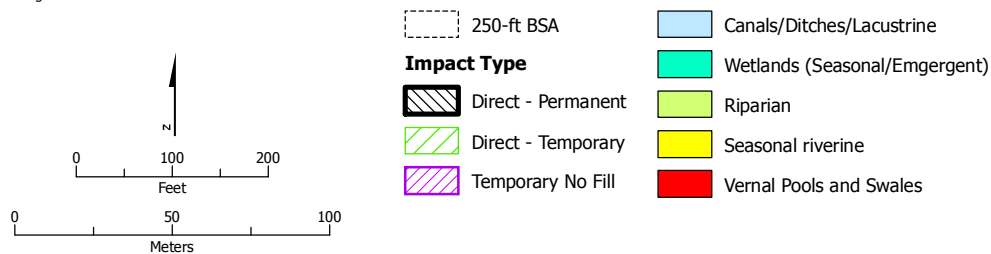
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD



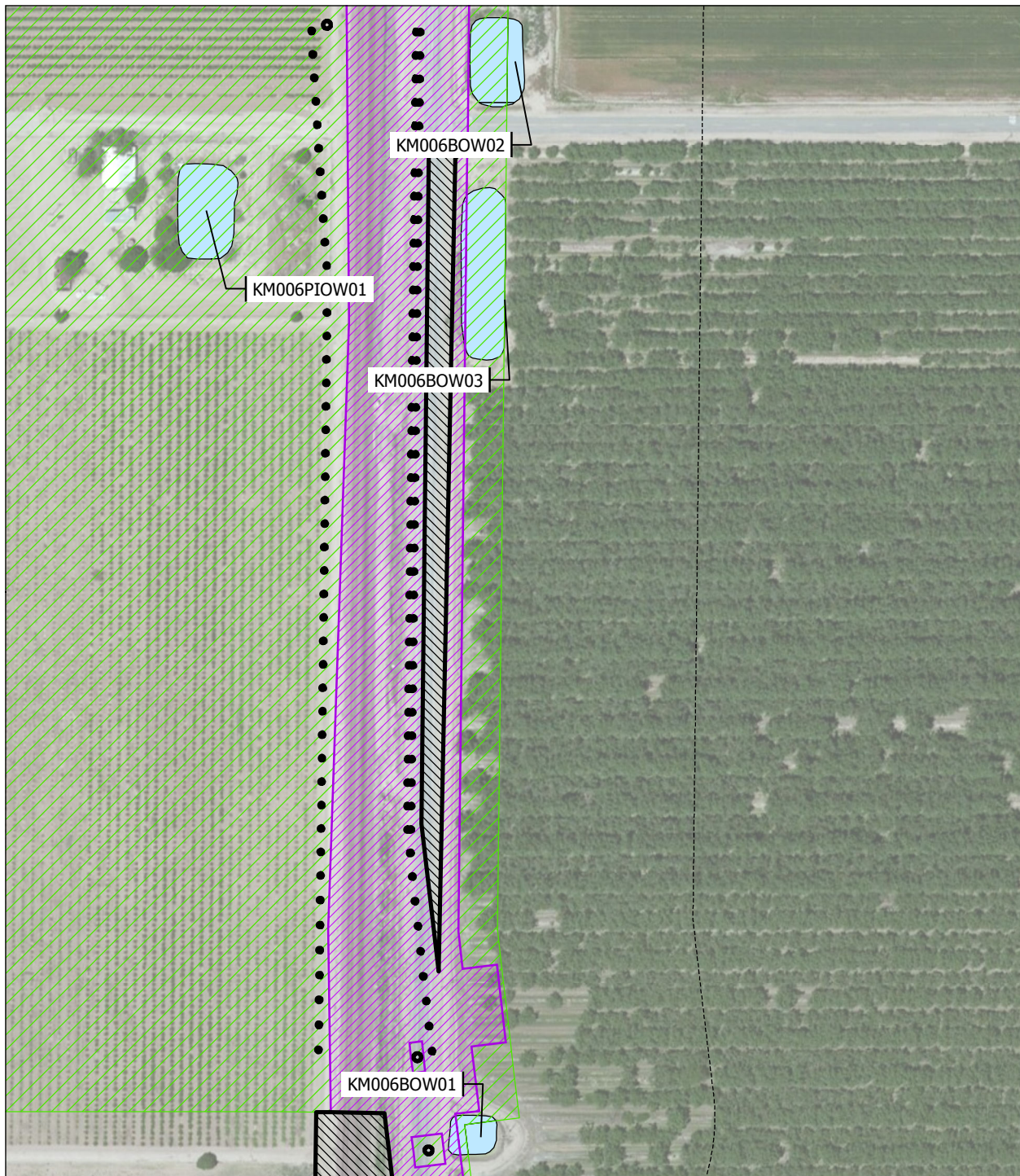
Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



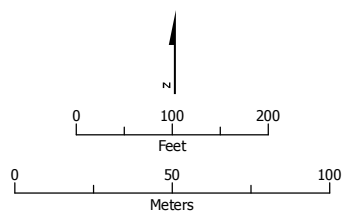
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CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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250-ft BSA

Impact Type

- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

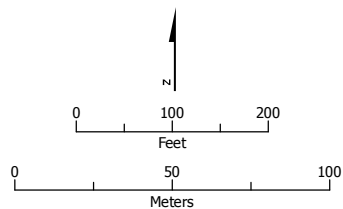
- Canals/Ditches/Lacustrine
- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales

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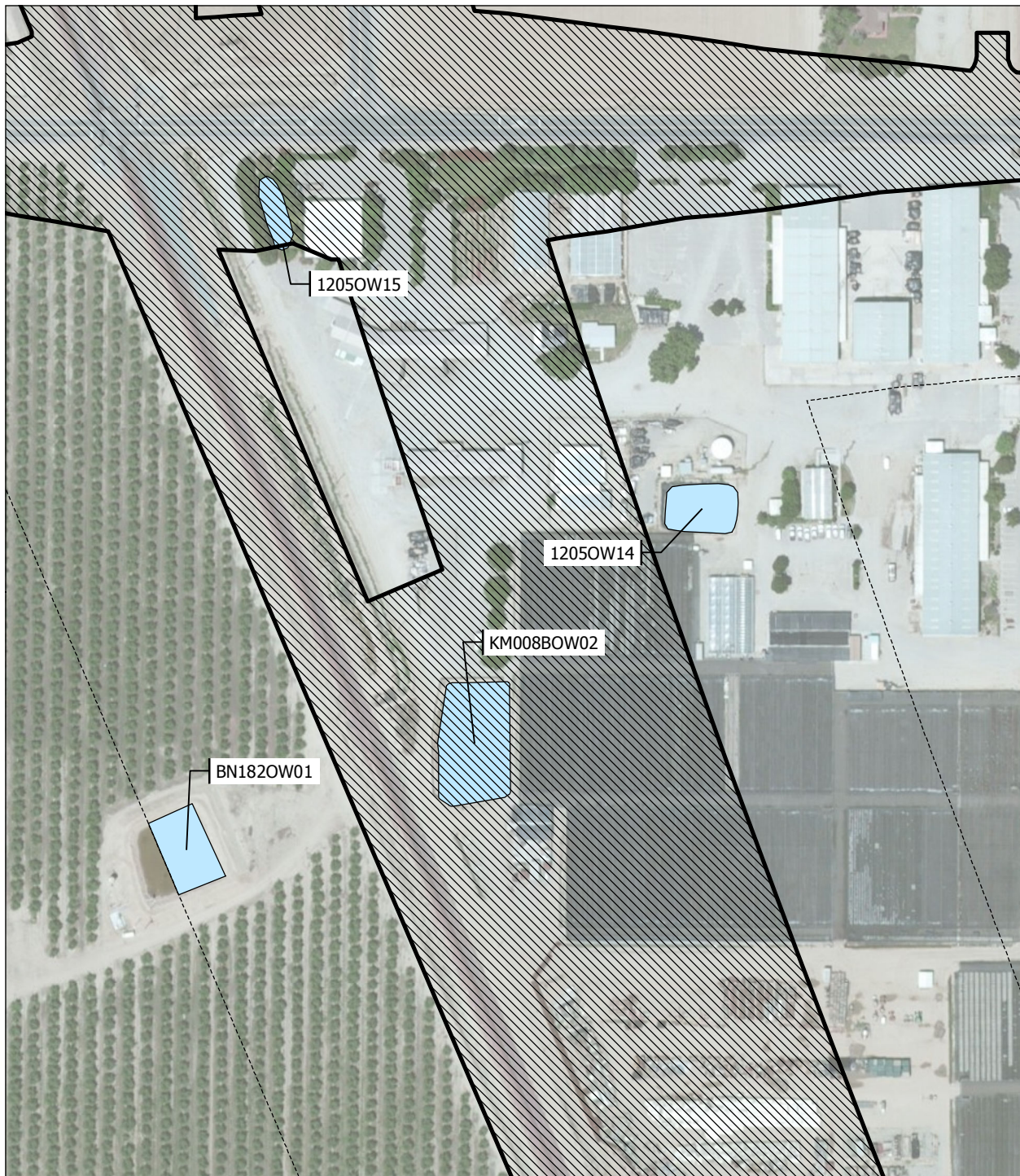
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Image source: ESRI

March 17, 2014



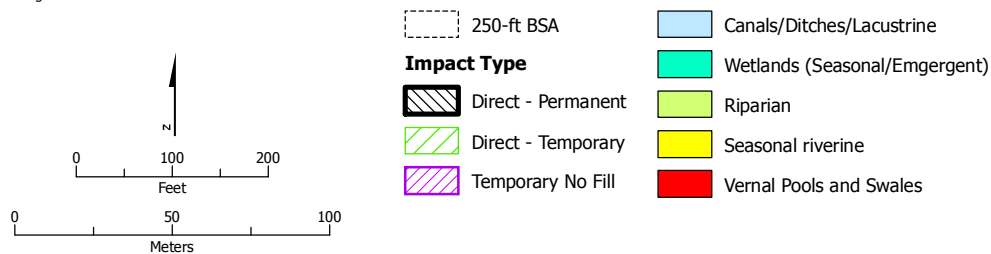
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

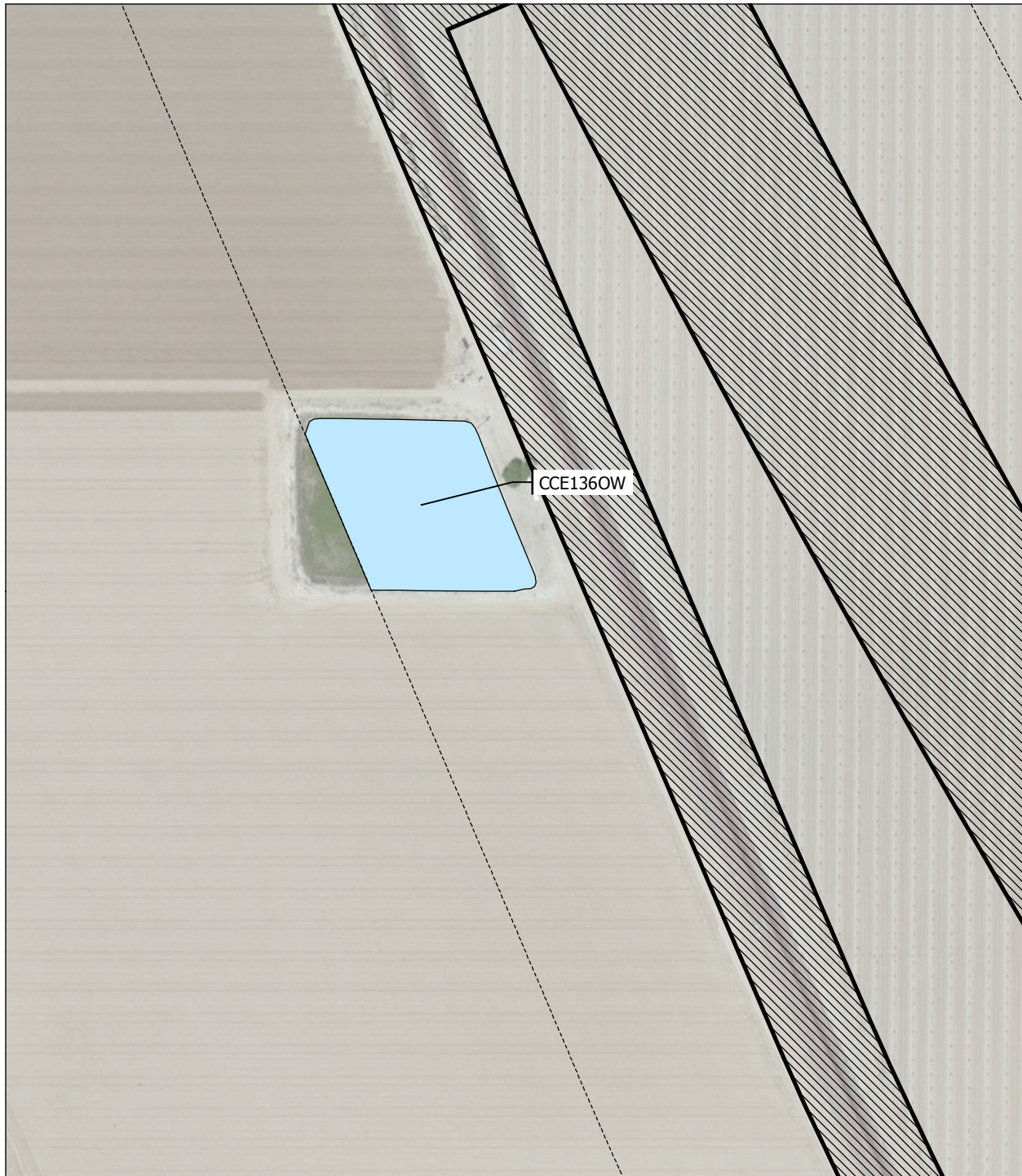
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

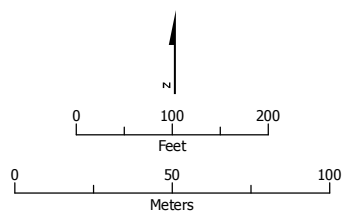
March 17, 2014





Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



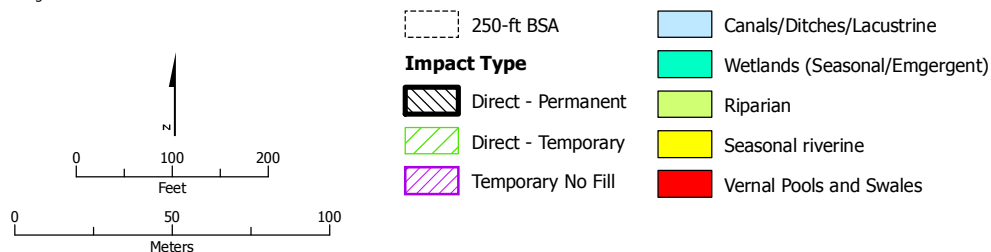
250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD



Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

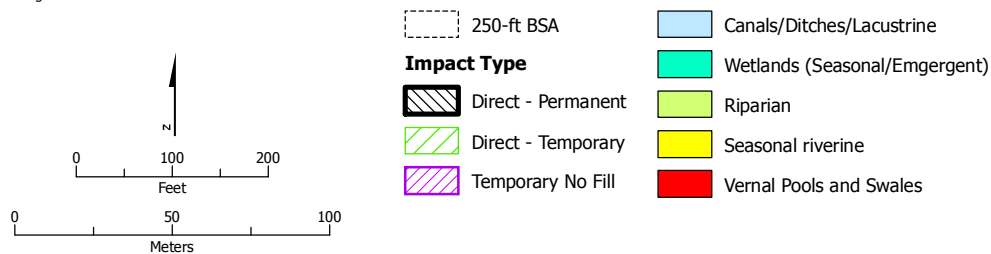


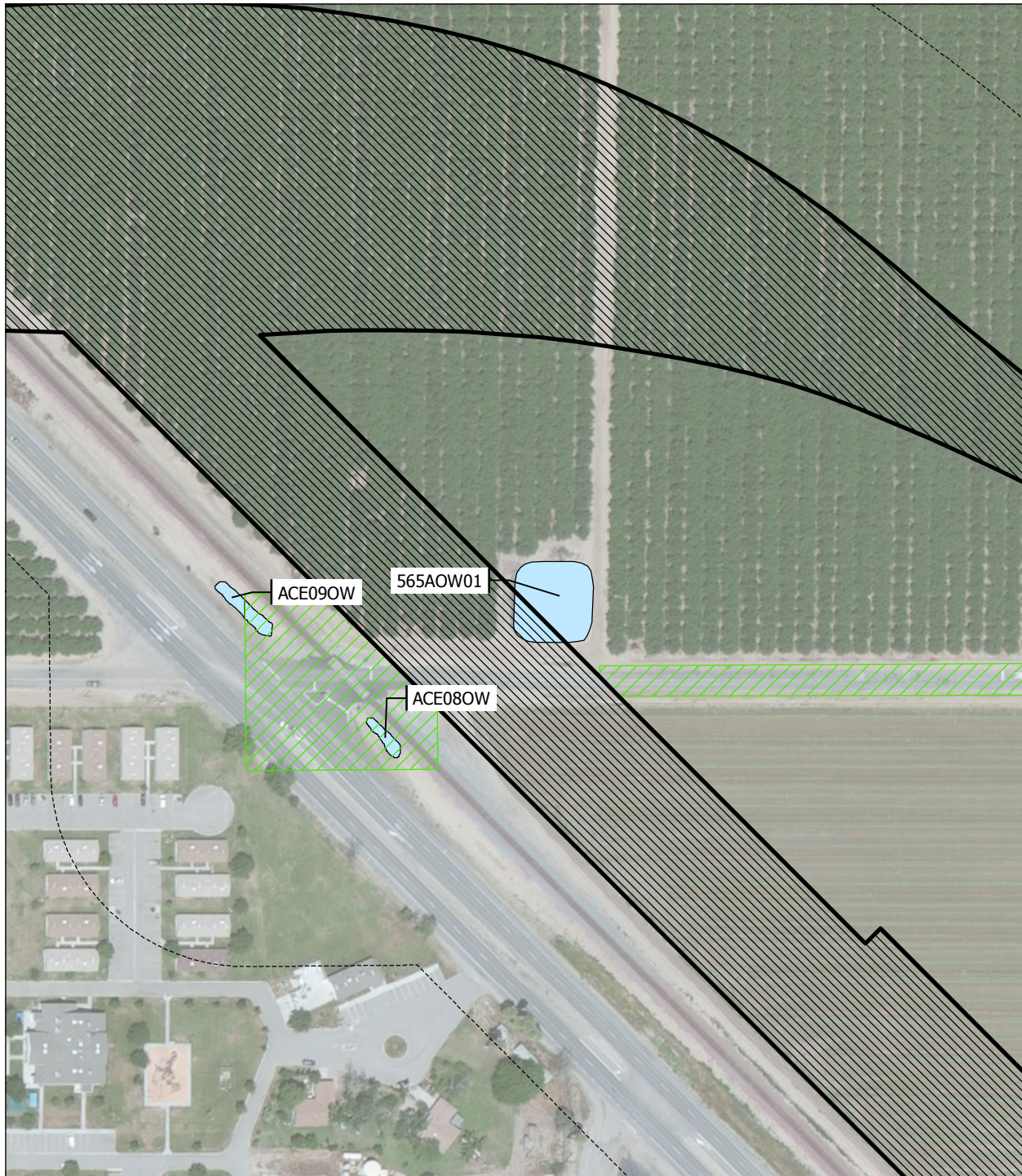
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

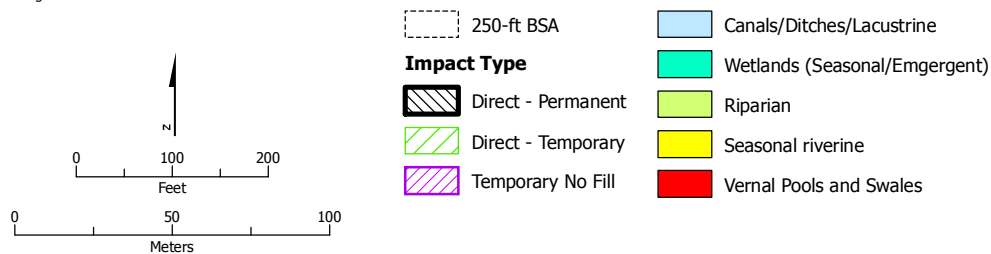
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

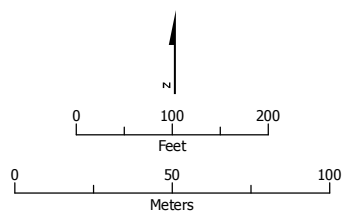
March 17, 2014



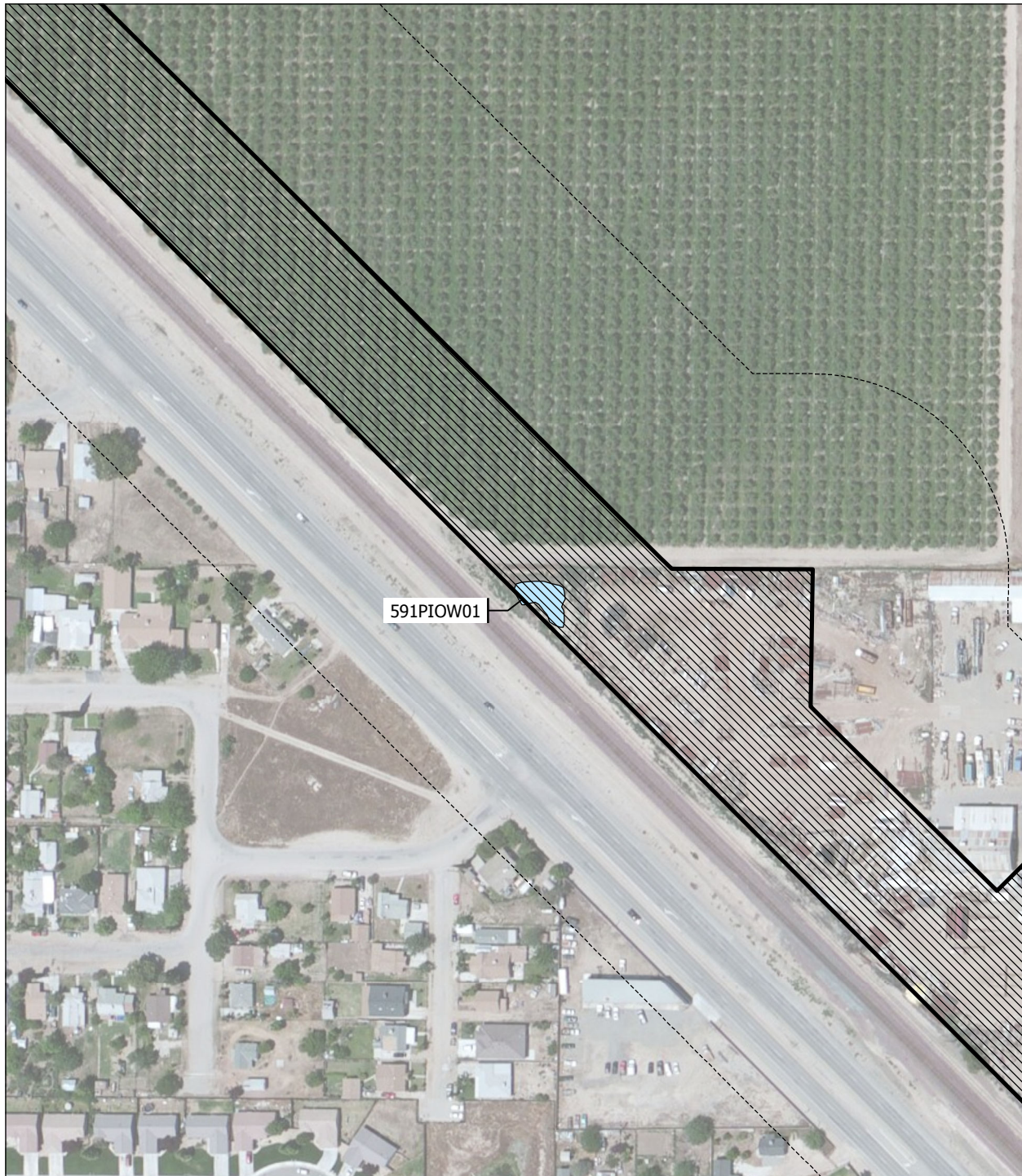


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

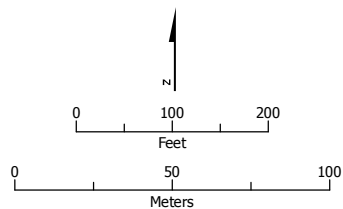


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

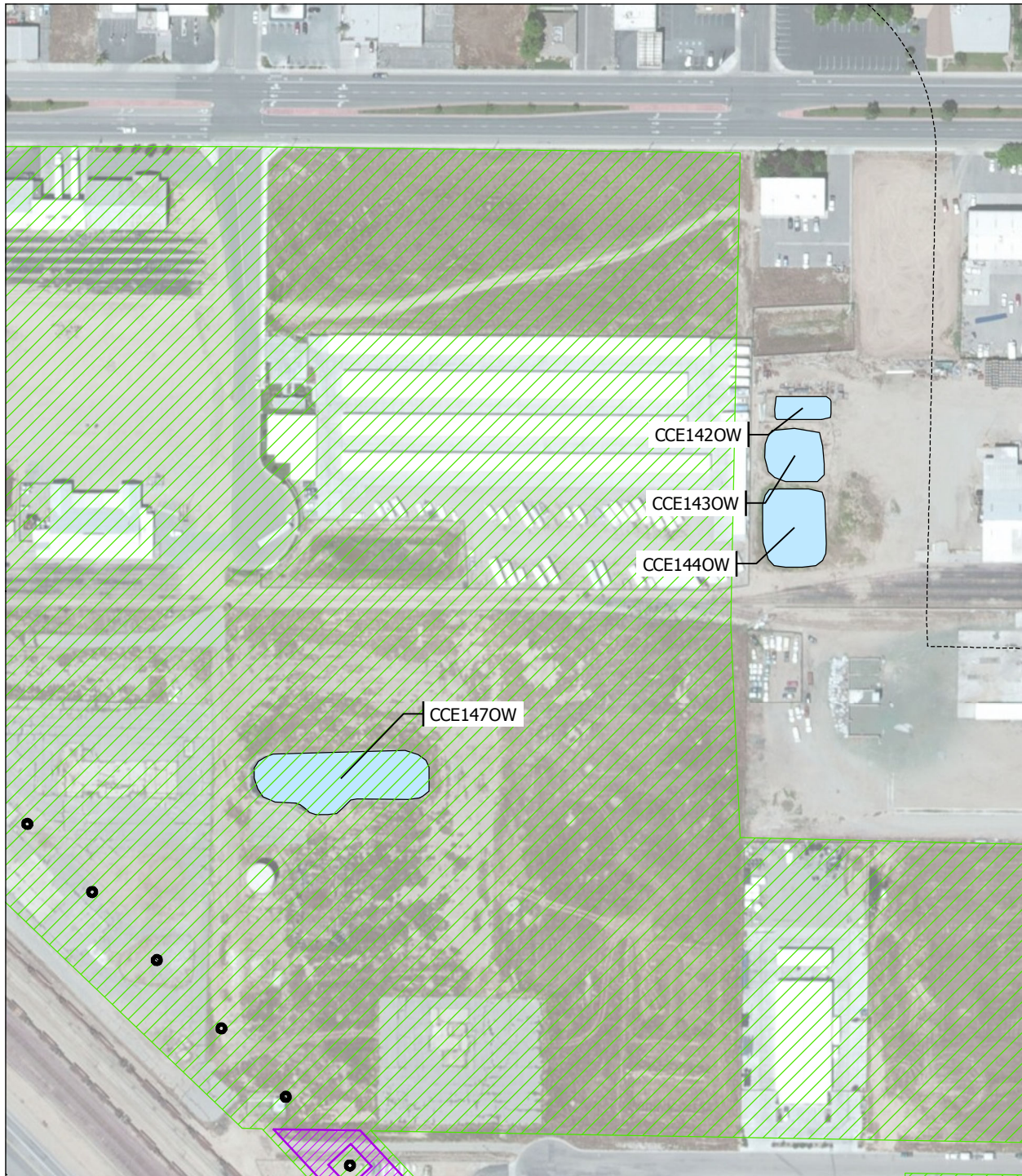


Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014

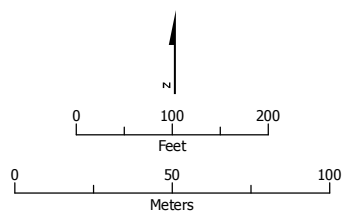


250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

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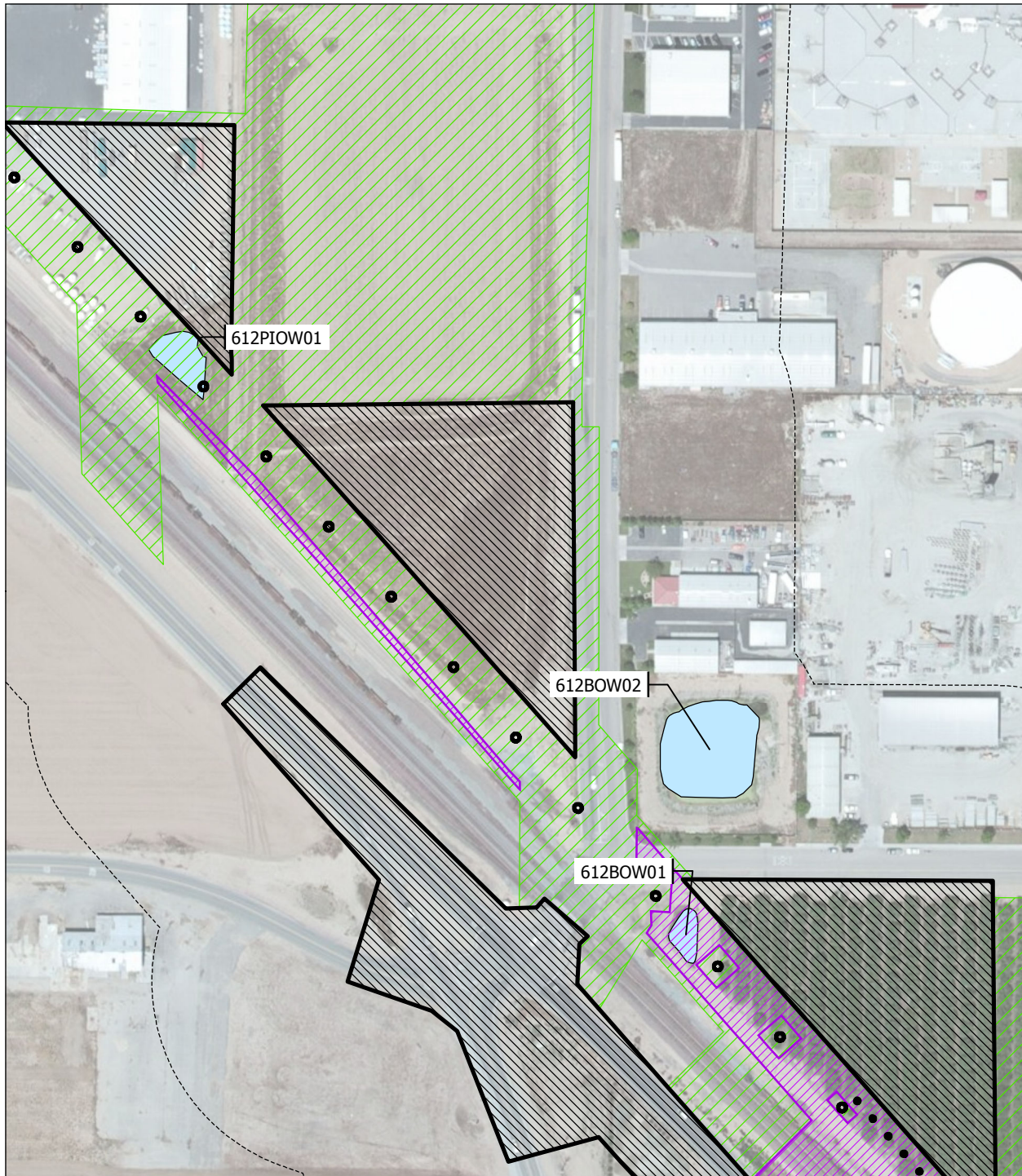


250-ft BSA

Impact Type

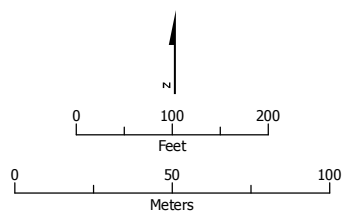
- Direct - Permanent
- Direct - Temporary
- Temporary No Fill

- Canals/Ditches/Lacustrine
- Wetlands (Seasonal/Emergent)
- Riparian
- Seasonal riverine
- Vernal Pools and Swales



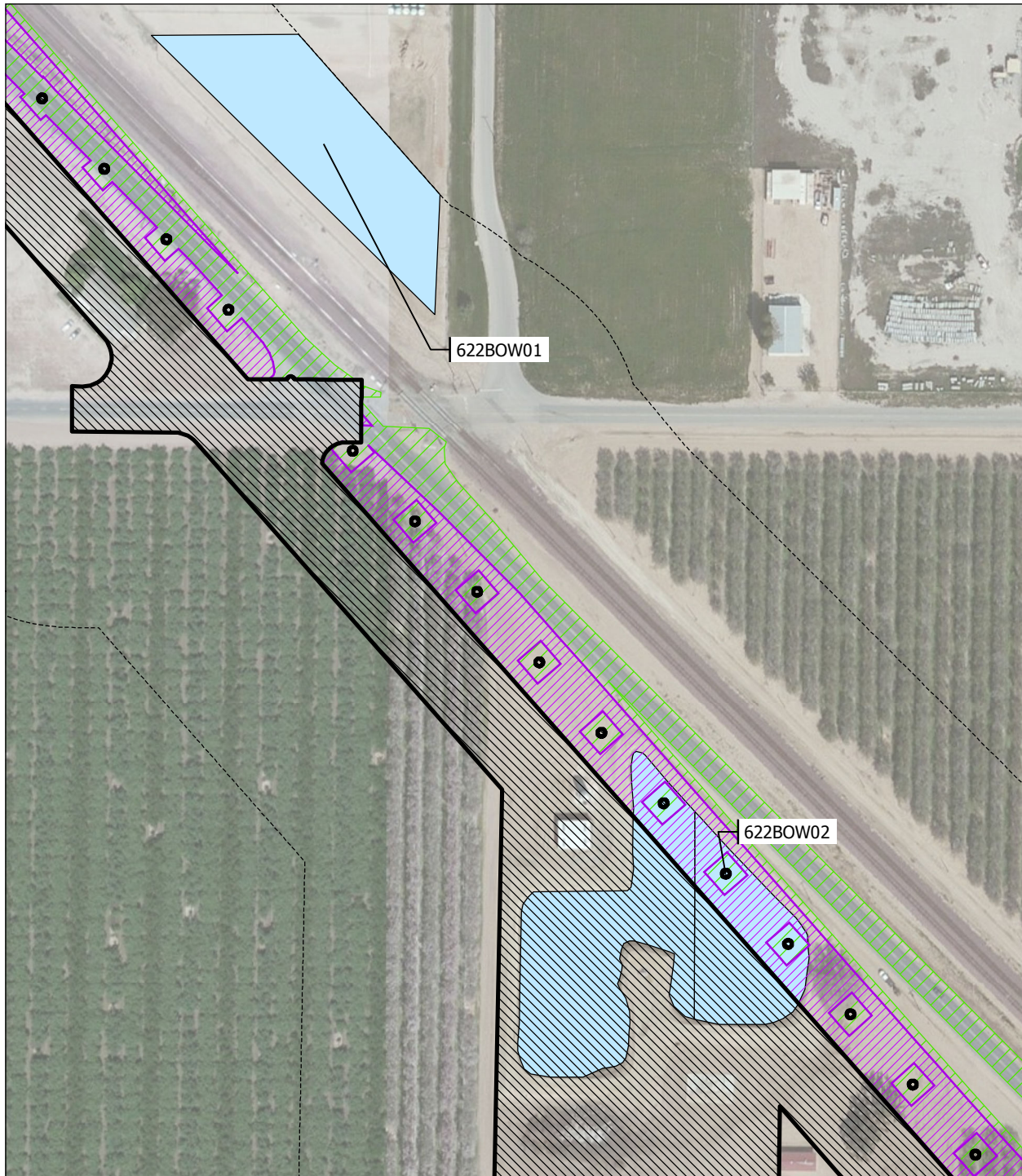
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Image source: ESRI

March 17, 2014



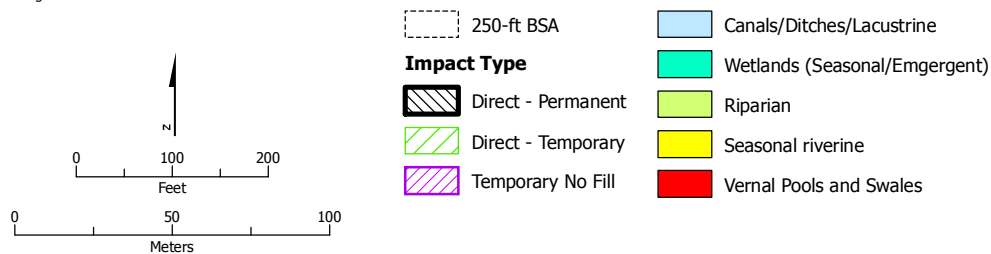
- | | |
|--------------------|------------------------------|
| 250-ft BSA | Canals/Ditches/Lacustrine |
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| Temporary No Fill | Vernal Pools and Swales |

CALIFORNIA HIGH-SPEED TRAIN PROJECT
FRESNO TO BAKERSFIELD

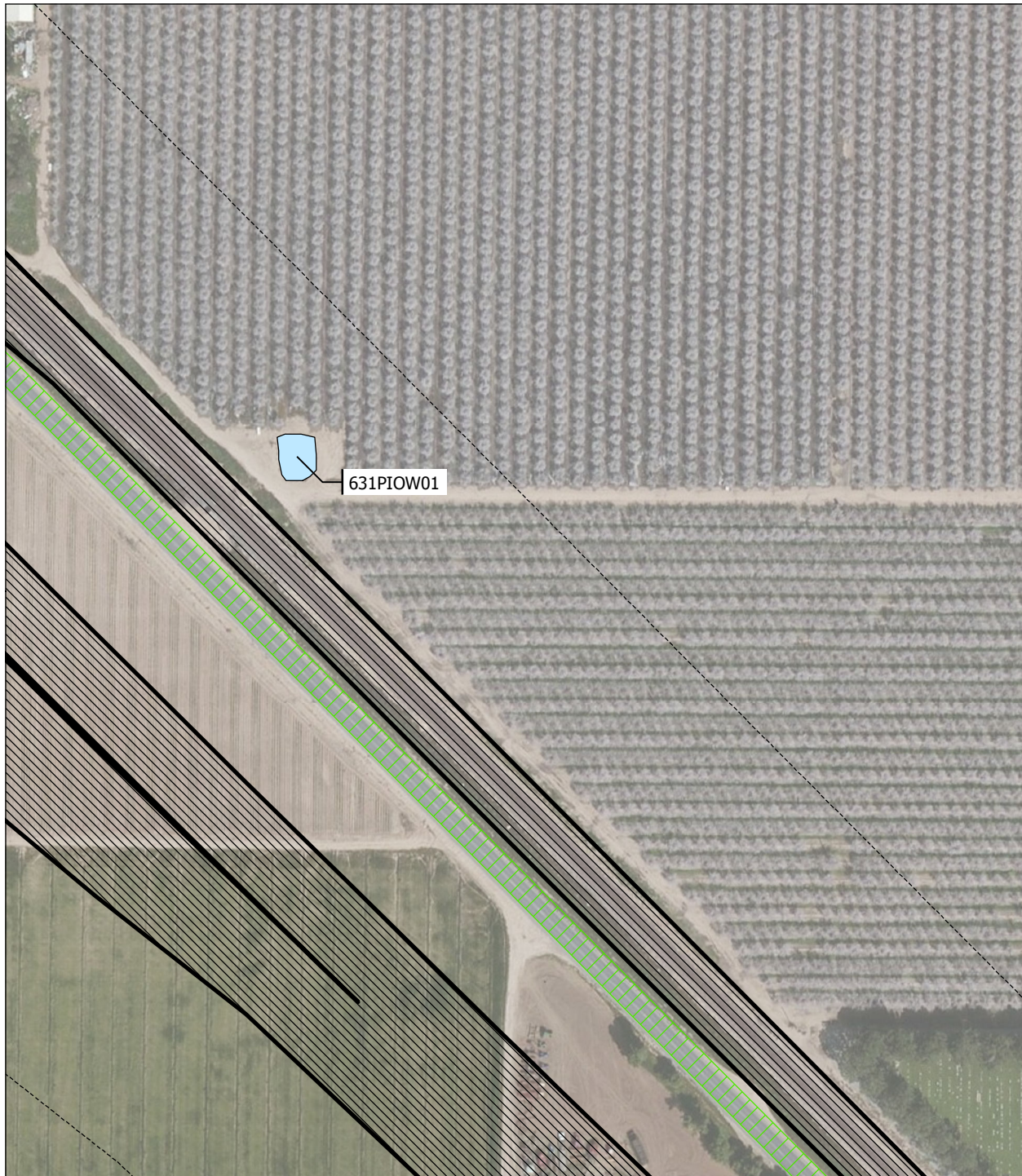


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March 17, 2014

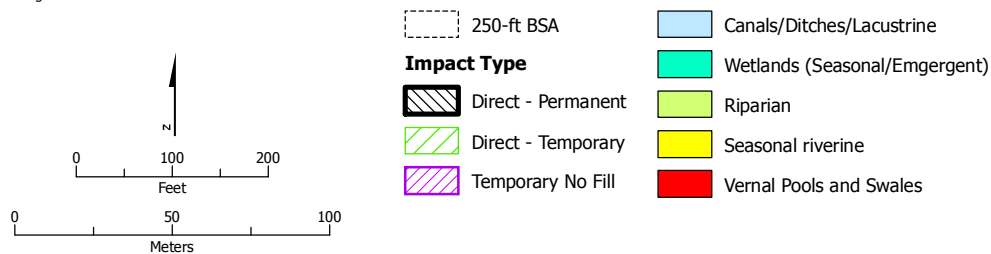


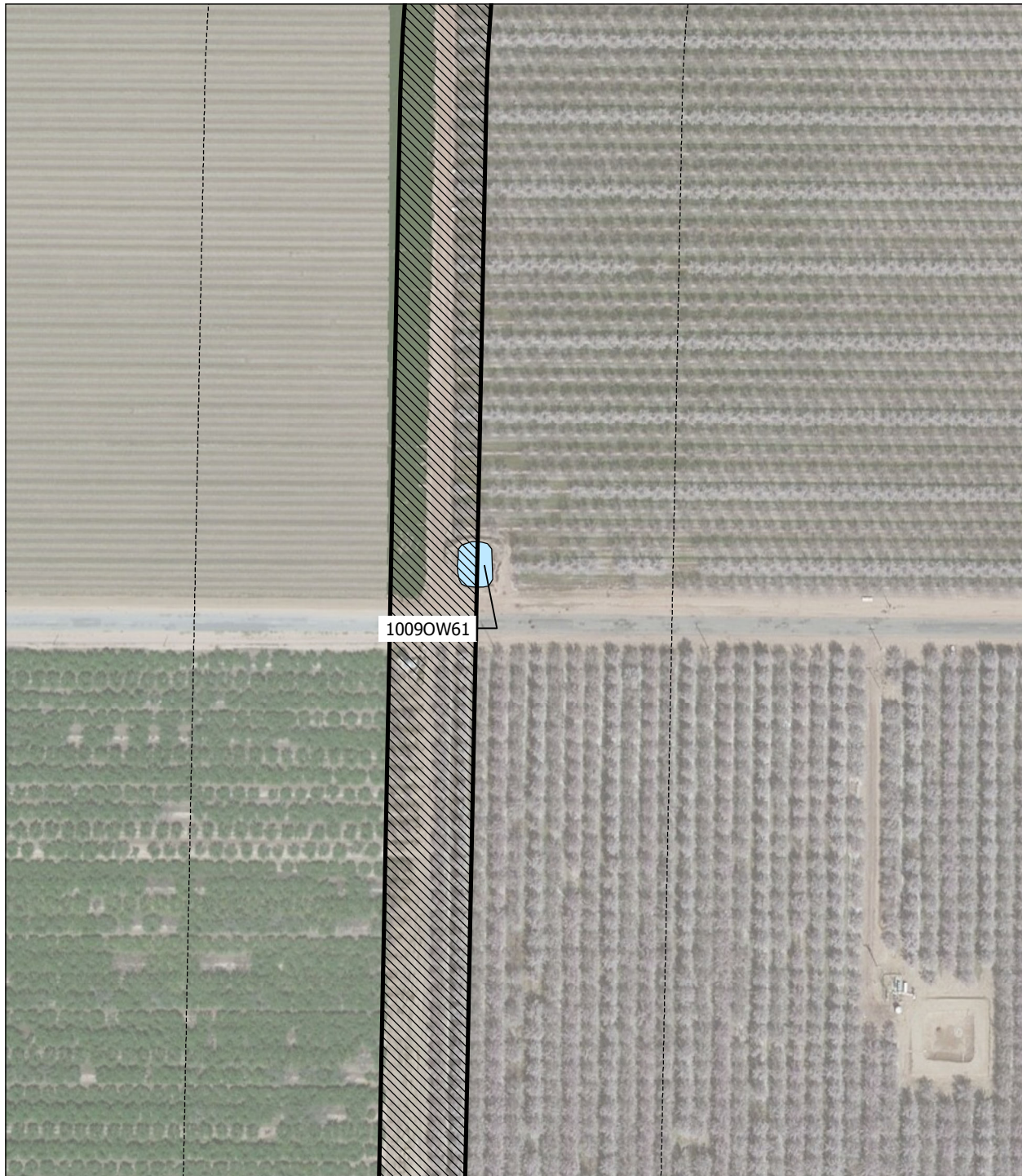
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

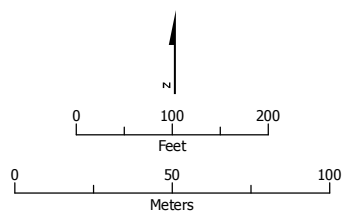
March 17, 2014





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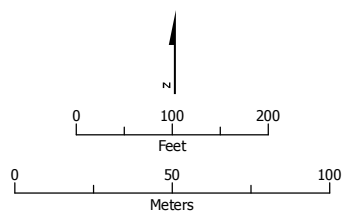
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Direct - Permanent	Riparian
Direct - Temporary	Seasonal riverine
Temporary No Fill	Vernal Pools and Swales

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Source: URS/HMM/Arup JV, 2014.
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March 17, 2014

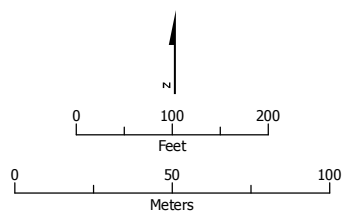


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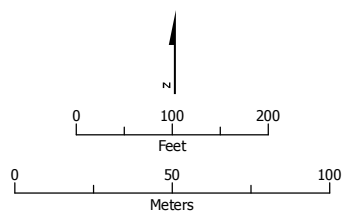
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Source: URS/HMM/Arup JV, 2014.
Image source: ESRI

March 17, 2014



250-ft BSA	Canals/Ditches/Lacustrine
Impact Type	Wetlands (Seasonal/Emergent)
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